Visitor motivations, expectations and satisfaction in a rainforest context: Implications for tourism management

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[a]Introduction

This chapter addresses five objectives related to nature-based tourism in the Wet Tropics rainforests of Australia. It aims to:

1 determine the socio-demographic characteristics of visitors to a rainforest site;
2 examine visitor motivations for visiting the site and explore any relationships with socio-demographics;
3 examine visitor expectations of the rainforest;
4 explore visitor satisfaction with the rainforest encounter and examine its relationship with socio-demographics and provision of interpretive information;
5 explain what these results mean for tourism managers.

It is useful to provide a brief literature context with respect to what is currently known about the identity of nature-based tourists, and what is understood about the nature of tourist expectations, motivations and satisfaction, including pertinent inter-relations. The review focuses on theoretical concepts; a broader range of literature is referred to in the discussion to explain the empirical findings.

With respect to tourist identity, research has shown that those who participate in nature-based tourism tend to be slightly older (between 35 and 54 in particular), better

educated, and more affluent than those who do not participate (see recently Kwan et al., 2010; Torres-Sovero et al., 2012). Environmental awareness and respect for local culture are also differentiating features. However, despite having much in common, there are many different types of nature-based tourist that are distinguishable by factors such as dedication to nature (for example, Lindberg's 1991 typology, comprising hard-core, dedicated, mainstream and casual nature tourists). Similarly, the levels of environmental engagement and degree of physical rigour demanded by visitors have been used in arguing for a distinction between 'hard' and 'soft' nature tourism experiences (Weaver, 2002).

Motivation is one of the most widely researched topics within tourism studies, commonly analysed to help explain aspects of tourist behaviour (see Hsu et al., 2010 for a concise summary). Tourist motivation is a 'meaningful state of mind which adequately disposes an actor … to travel, and which is subsequently interpretable by others as a valid explanation for such a decision' (Dann, 1981, p205). From this perspective, motivation represents a prerequisite to action. In a tourism context, motivation theories tend to be purposive, implying that people travel in order to fulfil certain needs and wants and that these needs and wants are the basic forces initiating a travel experience. The most common motivational forces offered by nature-based tourists for undertaking a given trip are a desire to enjoy scenery and nature, and to encounter new environments and experiences (Niefer et al., 2002; Kwan et al., 2010). There is potential for nature-based tourism to address higher order human needs, especially self-actualization and transcendence (personal fulfilment and helping others to self-actualize), following Maslow's hierarchy (1954).

Expectations are here defined as anticipations of the attributes of a product/experience (Arnold et al., 2004); in this case the nature of the rainforest and the physical encounter as anticipated by visitors. Whilst there has been much research into consumer expectations within services marketing (see Rodríguez del Bosque et al., 2006), the authors discovered no research examining expectations pertaining to encounters with

nature (as distinct from wildlife). However, some broad determinants of customer expectations of service are transferable to expectations of natural environments and encounters with them, such as the relevance of past experience and destination managers' explicit promises via promotional material.

Satisfaction can be defined as the cognitive-affective state of an individual derived from the consumptive tourist experience (Rodríguez del Bosque and San Martín, 2008). Usually measured on an ordinal scale, the mid-point of which is indifference, evaluations of different destination attributes commonly range on a continuum from highly dissatisfied to highly satisfied (but see Alegre and Garau, 2010, for the utility of discrete evaluations of satisfaction and dissatisfaction). As a service industry, tourism is inherently driven by customer satisfaction. Satisfied customers can be valuable in terms of customer loyalty and positive word-of-mouth marketing (Yoon and Uysal, 2005; Alegre and Garau, 2010). Thus, high visitor satisfaction will contribute significantly to the economic sustainability of tourist sites (Devesa et al., 2010).

Satisfaction is generated by a complex psychological process and is influenced in a number of ways by the antecedents of expectation and motivation. Expectations play a role in satisfaction formation as they not only form the basis of comparison in consumer evaluations (the disconfirmation paradigm of Hovland et al., 1957), but also act as a direct antecedent of satisfaction as tourists process new consumption experiences in terms of existing beliefs (the assimilation theory of Sherif and Hovland, 1961). Consequently, satisfaction is an indirect function of disconfirmation of expectations and a direct function of consumer expectations (see Pizam and Milman, 1993; Rodríguez del Bosque et al., 2006, Rodríguez del Bosque and San Martín, 2008). With respect to motivation, Devesa et al. (2010) found that visitors to rural Spain made different evaluations of destination attributes depending on the reasons that motivated or determined their trip. They concluded that

service providers at tourist destinations need to understand motivational typology as it will impact on levels of tourist satisfaction.

There are numerous attributes of the nature-based tourist experience, relating to tourism provision and/or the consumed environment, which can be gauged with respect to satisfaction. These include, for example, transport, accommodation, catering, tour staff, range of visitor activities, extent of interpretation, and engagement with environment/wildlife. Levels of satisfaction investigated in this research focus only on the nature of the encounter with the tropical rainforest ecosystem. Moscardo et al. (2001) identified a paucity of knowledge concerning visitor satisfaction in Tropical North Queensland in relation to nature tourism experiences. This has been partly addressed by Coghlan and Prideaux's (2008) substantial comparative study of international visitors to different wildlife contexts surrounding Cairns. These authors found that satisfaction was highest for visitors on wildlife tours, but it was also generally high with reference to experience in zoos and natural areas. Additionally, there is evidence that interpretation can contribute to customer satisfaction in nature-based tourism contexts. For example, visitors to Skyrail Rainforest Cableway in Tropical North Queensland were significantly more satisfied with their visit if they used interpretive facilities when compared to visitors who did not (Moscardo and Woods, 1998). Similarly, at the Valley of the Giants Tree Top Walk in Western Australia, significant increases in visitor satisfaction were found as a result of their reading trail-side interpretive signs (Hughes and Morrison-Saunders, 2002).

The research presented in this chapter examines satisfaction with a number of components of the rainforest encounter (both affective and cognitive) and compares these with pre-visit motivations and expectations. It discusses what the continuities and discontinuities between the antecedents and the realized state of satisfaction mean for tourism managers in their quest to provide a satisfying visitor experience.

[a]Field site and research methods

Field research was undertaken at Crocodylus Rainforest Village in the Daintree rainforest in Queensland, Australia. This private site incorporates an unsurfaced 1.75km circular ropewalk that passes through semi-natural rainforest. The walk exemplifies a diverse range of forest habitats accessed via a single entry and exit point. It is subject to minimal anthropogenic intervention, thereby offering tourists a largely uncontrived encounter with nature. In total, 265 English-speaking visitors to the walk (roughly 42% male and 58% female) were questioned during July/August 2004 and July 2005. Every visitor who started the walk between 7am and 5pm on the survey days was asked to take part in the survey and the response rate was 91%. The visitors actually comprised two sub-samples; those receiving (n=138) and those not receiving (n=127) ecological interpretive sheets provided by the authors. The interpretive material is not detailed here (for further information see Hill et al., 2007). However, visitor satisfaction will be examined with respect to the affective (emotional) domain and the cognitive (intellectual) domain to ascertain whether either is influenced significantly by the provision of ecological information. Additionally, any significant influences of visitor socio-demographics on motivation and satisfaction will be evaluated.

The visitors undertook a self-administered, written questionnaire, with half of the questionnaire being completed immediately pre-visit and the remainder undertaken immediately post-visit. Visitors were monitored as they answered pre-visit questions to ensure that they did not read through the remainder of the questionnaire. This reduced bias in their answers through pre-visit sensitization.

Visitor expectations of the rainforest were ascertained via an open-ended question on the questionnaire. In view of the lack of previous research concerning nature-based expectations, this method allowed free expression of the respondents, avoiding researcher bias through pre-determined response categories. By contrast, motivation to visit the

rainforest was ascertained by asking respondents how important 15 motivational statements were to their visit. Motivational statements pertinent to the destination were selected from those used most commonly in the literature and comprised both push and pull factors. Whilst push factors are more related to internal or emotional aspects, such as the desire for escape, pull factors tend to be linked to external situational aspects such as the natural features of a destination (Devesa et al., 2010). Visitors responded using a 4-point rating scale graded from 'not at all important' to 'very important'.

Visitor satisfaction with 16 components of their rainforest experience was measured on a 5-point rating scale, where 1 was 'very dissatisfied' and 5 was 'very satisfied'. A statement concerning the provision of rainforest information was the extra component measured in relation to satisfaction. These satisfaction components were again based on common attributes identified from previous research, pertinent to the test site and aims. Visitors also had an opportunity, through an open-ended question, to describe elements of the rainforest with which they were satisfied or dissatisfied.

SPSS version 17 for Windows was used for analysis of the quantitative questionnaire data. Visitor demographics, motivations and satisfaction were summarized using descriptive statistics. Chi-square (χ^2) statistical analyses were used to test for significant differences in motivation and levels of visitor satisfaction according to visitor socio-demographics and exposure to interpretive information. Principal component analysis (PCA) with varimax rotation was used to reduce the motivation and satisfaction statements into a smaller number of dimensions. Reliability was tested using Crohnbach's alpha.

The written accounts of visitor pre-visit expectations of the rainforest and their post-visit satisfaction/dissatisfaction with the ecosystem were subjected to content analysis. Responses were coded manually according to commonly used words and phrases, and frequency counts were produced using NVivo version 7.

[a]Results

[b]Visitor socio-demographics

The surveyed respondents were largely (65.3%) international visitors (notably from the UK and Ireland – 27.6%; Europe – 21.2%; and North America – 17.2%), travelling alone or in pairs/small groups, largely visiting the site for the first time, but familiar with other rainforest locations inside and outside of Australia. They were predominantly young (53% under the age of 30) and well educated, with 66% holding a first or higher degree. Nearly 98% of visitors expressed some/strong interest in rainforest when questioned before their walk. However, over three-quarters of the visitors felt that they possessed only a little knowledge of rainforests prior to their visit and a further 8.6% felt they knew nothing about the biome. Almost 86% of visitors professed to be interested/very interested in learning about rainforests, with a further 14% expressing a slight interest.

[b]Visitor motivations and expectations

Examination of the 15 discrete motivational components revealed that the strongest motives for visiting the rainforest were ‘to encounter scenic beauty’ (with a mean response of 3.66 out of 4.00), ‘to see the rainforest wildlife’ (3.61) and ‘to enjoy the sounds, smells and feel of the rainforest’ (3.56) (Table 1). These reasons were considered to be important/very important in motivating the respondents to visit the rainforest. Other motives to rate above 3.00 were ‘to explore something new and different’ (3.40), ‘to have fun and enjoy yourself’ (3.36) and ‘to encounter the rainforest structure and trees’ (3.22). The only motive to return a mean value of less than 2.00 was passing time whilst in Queensland (1.83). This reason was only slightly important in motivating visitors to visit the rainforest. There were no significant relationships between visitor socio-demographic characteristics and these motivations concerning encountering the rainforest sensually and enjoying the experience generally (χ^2 at p=0.05).

Using PCA, four factors were identified as representing 61.65% of the variance amongst the ratings of the motivational statements. The factors were identified as 'encountering the rainforest and wildlife' (explaining 17.15% of the variance), 'learning about the rainforest' (15.54% of variance), 'novelty and enjoyment' (15.28% of variance) and 'escape and freedom' (13.68% of variance). Reliability analysis indicated that the internal consistency within each of the four factors was generally good (Crohnbach's alpha >0.7). Two of the motivation statements (concerned with taking exercise and passing time whilst in Queensland) were discarded during analysis as they were not found to be reliable elements of motivation.

With regard to expectations of the rainforest, six themes were elicited from descriptive visitor responses (Table 2). Anticipated attributes related to the 'visual atmosphere', 'forest structure', 'climate', 'diversity (of plants and animals)', 'volume of flora and fauna', and 'sound'. The most frequently cited words were dense (81 counts), green (67 counts), dark (59 counts), wet (48 counts) and humid (42 counts). Respondents typically mixed a number of these words and themes together to articulate an evocative sense of the environment:

'Wet, lush, green, dense, diversity of wildlife' (Respondent 7)

'Dappled light, cool, damp smell, noisy with bird song' (Respondent 236)

[b]Visitor satisfaction

Over 90% of visitors agreed/strongly agreed that the rainforest had met their expectations. Examining satisfaction with16 discrete components of the rainforest experience, the highest mean score (4.32 out of 5.00) was recorded for visitors' 'encountering the rainforest structure and trees'. 'Encountering scenic beauty' (4.25), 'enjoying the sounds, smells and feel of the rainforest' (4.16), 'exploring something new and different' (4.15) and 'having fun and enjoying yourself' (4.10) were the only other

categories to rate above 4.00 (Table 1). This indicates that visitors were satisfied/very satisfied with these aspects of their rainforest encounter. By contrast, the lowest mean satisfaction scores were recorded for 'gaining a sense of rainforest history' (2.88), 'sharing knowledge with others' (3.25) and 'seeing the rainforest wildlife' (3.31).

PCA reduced the 16 satisfaction statements to four factors that represented 64.05% of the variance. Internal reliability within each of the four factors was good (Crohnbach's alpha >0.7). The factors were identified as 'personal enjoyment and socialising' (explaining 19% of the variance), 'rainforest encounter and exploration' (17.09% of variance), 'learning about the rainforest' (15.67% of variance) and 'escape and freedom' (12.29% of variance). 'Seeing the rainforest wildlife' had to be discarded from the PCA as it was not found to be a reliable component of satisfaction.

Visitor responses to the open-ended question on the questionnaire elicited five themes concerning their satisfaction with the rainforest (Table 3). These were 'encounter with diversity', 'sensory immersion', 'escape and novelty', 'pristine nature', and 'general experience and learning'. Although visitors covered a broad array of sub-themes, concepts frequently referred to were beauty/beautiful (28 counts), noise and rainforest sounds (37 counts), seeing some wildlife, plants and trees (57 counts as a group) and concepts connected to a serene experience in an untamed/unmanaged area. These responses elicited notably more emotive comments than those describing visitor expectations. Visitors noted, for example:

> 'The time out there helped me to slow down and connect and appreciate the forest experience' (Respondent 145)
>
> 'A profound experience of (almost) untouched nature' (Respondent 225)

In terms of dissatisfaction, the responses highlighted succinctly the frustration of the visitors in not seeing what they considered to be sufficient wildlife during their visit

(eliciting 69 negative comments) (Table 3). Statements tended to be direct and often finished with an exclamation mark to emphasize their message:

'No cassowary sighting!' (Respondent 17)

'Would have liked to have seen more wildlife!' (Respondent 43)

This dissatisfaction was related directly by some visitors to their expectations of seeing wildlife whilst in the rainforest:

'Didn't see as much wildlife as expected' (Respondent 47)

'I saw the plants I expected to see ... but very few animals' (Respondent 200)

When expectations were more realistic, there was evidence of greater satisfaction:

'Would love to have seen some wildlife – however I know this is never a given. The forest itself was intriguing and very satisfying' (Respondent 266)

When motivation and satisfaction scores were compared, and the difference in their ranking examined, it was clear once more that the least satisfying aspect of the rainforest visit was the inability to view wildlife (Table 1). Seeing wildlife was ranked as the second most important motivational force, but the thirteenth most satisfying component of the experience, a drop of 11 places. By contrast, undertaking the walk certainly surpassed expectations in terms of encountering the rainforest and passing time (both components recording a rise in rank of five places). Similarly, satisfaction with being with friends and family and doing something to tell friends about both recorded a rise in rank of four places.

[b]Differences in visitor satisfaction

The satisfaction components were examined with respect to socio-demographics and provision of interpretation. No significant differences were identified in visitor satisfaction levels relating to the rainforest encounter, exploration or enjoyment according

to socio-demographics (χ^2 at p=0.05). However, five components recorded significant differences in satisfaction levels when comparing responses for visitors receiving and visitors not receiving interpretive information. Four of these components related to the provision of information, learning and sharing knowledge, whilst one related to experiencing the forest in a multi-sensory manner. The most significant differences were recorded for satisfaction with the provision of biodiversity information and learning about the rainforest. For these components satisfaction was significantly higher for visitors who used interpretive sheets than for those who did not (χ^2=87.90 and χ^2=70.26, p<0.001). Visitor satisfaction with sharing knowledge with others (χ^2=10.12, p<0.05) and comprehending something of the evolutionary history of the forest (χ^2=12.97, p<0.01) were also significantly higher for those visitors who used the interpretive sheets. The final significant difference in satisfaction levels was related to the multisensory visitor encounter with the forest. The mean satisfaction score rose from 4.07 for those visitors using interpretive sheets to 4.25 for the visitor sample not using the sheets (χ^2=12.67, p<0.05). Supporting this, nearly 40% of respondents who used interpretation indicated that it intruded on the enjoyment of their walk to some degree, although 31.6% indicated this was only a little. It must be noted, however, that figures above 4.00 indicate a high degree of satisfaction for both groups of visitors, despite there being a significant difference recorded.

[a]Discussion and management implications

[b]Visitor socio-demographics

Successful management of tourism in natural areas depends to a large extent on an understanding of the people who take part in the tourism experience. From the sample of respondents, the rainforest proved to be an internationally attractive tourist resource. Visitors from overseas ranked the highest in number, fitting closely the general profile of visitors to Tropical North Queensland (Coghlan and Prideaux, 2008). The survey sample

demonstrated a young age profile, contrasting with the 36-55 age group commonly cited as the average age for nature-based tourists (Kwan et al., 2010). This is more in line with 'hard-core' ecotourists (Weaver, 2002). The visitors tended to travel with partners, friends, or alone, again agreeing with Weaver's (2002) definition. They were generally well educated, supporting many published studies where nature-based tourists possess at least a bachelor's degree (Niefer et al., 2002; Torres-Sovero et al., 2012) and they were keen to learn more about the biome. It is proposed that such young, well educated, peripatetic visitors might form a receptive audience that can be directed via environmental interpretation to experience the rainforest in a manner conducive to the requirements of managers. The site might additionally represent a valuable educational opportunity for increasing visitor understanding about the threats to and management options for the biome.

[b]Visitor motivations and expectations

The most important motivational forces for the visitors concerned encountering the rainforest (as a largely novel environment) in a sensually stimulating manner (agreeing with Niefer et al., 2002; Kwan et al., 2010; McNamara and Prideaux, 2011). In other words, the key motivational forces were directly dependent on pull factors originating in the natural environment, including the plant and animal components of the ecosystem. General enjoyment and escaping the stresses of everyday life also ranked highly and there was a discrete set of motives surrounding learning in the environment, either individually or in a more social context, sharing knowledge with others. These key motivational components were not significantly influenced by socio-demographics, agreeing with previous nature-based tourism research (Luo and Deng, 2008; Meng andUysal, 2008). Thus, destination marketing might stress not only that natural areas are attractive and enjoyable locations, but that they offer an obvious contrast to and escape from everyday life for a broad spectrum of

nature-based tourists (Mehmetoglu, 2007a). Further, nature-based destination managers might tailor their products in such a way that they can meet the desire of visitors to both experience and learn something new (Mehmetoglu, 2007b).

Motivational components with relatively little import concerned creative activities, general exercise or passing time, and being with friends and family. Activities that can be undertaken in any location, with the natural setting as incidental, are rated much lower as motivational forces (following McNamara and Prideaux, 2011).

Visitor expectations of the rainforest were rooted in physical or tangible elements of the encounter such as the wet nature of the climate, the height, density and layering of the vegetation, species diversity (of plants and animals) and animal sounds, particularly bird-song. These expectations were linked closely to motivational forces cited by the sample of visitors with the exception that, across the whole sample, the sensual nature of the visit was not prominent. Open-ended responses linking expectations and satisfaction highlighted that those visitors who held realistic expectations prior to their visit were more satisfied with their experience post-visit. Managing the expectations of visitors to nature-based sites can lead to positive disconfirmation, where, if an experience exceeds expectations, it draws out positive emotions and leads to satisfaction (Pizam and Milman, 1993; Rodríguez del Bosque and San Martín, 2008). Satisfied visitors may consequently be more positive in their personal testimonies and/or more loyal to a destination after their visit.

[b]Visitor satisfaction

The rainforest encounter largely provided a satisfying tourist experience, irrespective of visitor socio-demographic characteristics and provision of interpretive information. Supporting previous findings (Wallace and Pierce, 1996; Ryan et al., 2000), visitors were satisfied with gaining a purely affective (or emotional) experience, where the value of their visit lay in the enjoyment they gained from a sensual and immersive

encounter with an environment that was often novel to them. This is most likely explained by the nature of the site. The narrow, unsurfaced path with tree trunks and boughs to climb over or pass under provided an immediate and unmediated encounter with the natural environment. After their walk, the visitors described a more intimate connection with nature than they did when communicating their pre-walk expectations. They moved from an expectation of a physical encounter with the environment to satisfaction with a deeper experiential encounter. Some seemed to attain Maslow's (1954) 'peak experience', gaining a moment of self-enlightenment. It must be remembered that visitors self-paced their encounter and many experienced the forest alone or with just one companion. Managers at rainforest sites are consequently advised to allow visitors on guided tours to take time alone to experience the wonders of the environment, thus facilitating the achievement of 'higher order' needs. The sample of visitors also seemed to arrive at the site with rather narrow expectations, but they left it with a much broader base of satisfaction. The rainforest outperformed expectations, satisfying visitors in ways they did not/could not articulate before their visit.

Satisfaction components concerning rainforest structure and beauty, and exploring a new environment that is free from the constraints of everyday life, scored highly in this study. It appears that tourism managers do not need to manage the expectations of visitors or the environment to ensure general visitor satisfaction with these components, provided the environment is largely free from evidence of damage, as this was linked to dissatisfaction by visitors. There is potential, however, for pre-visit information to raise visitor interest in the less tangible physical attributes of a rainforest, and to emphasize the positive emotions that an encounter with the biome can evoke (such as wonder and awe). These aspects were undervalued by visitors relative to their post-visit satisfaction with them. Equally, destination managers could draw greater attention to tourists sharing their experiences with friends and family to appeal to their internal push motives to visit.

Satisfaction with these components was rated higher relative to their initial motivation scores.

The provision of interpretive information to visitors impacted significantly on their emotive encounter with the rainforest. There was some evidence of visitors being sensually 'removed' from their environment as their intellectual skills were engaged. This was despite the fact that the interpretation aimed specifically to draw visitors into the forest via the use of sensory activity boxes (Hill et al., 2007). Managers might consider designing interpretive information to activate multiple senses; especially sight, sound and touch, and its extent on-site needs to be carefully controlled. Overall, however, a high degree of satisfaction with the emotive encounter was recorded for both groups of visitors, possibly because learning about the rainforest was cited as an important reason to visit the site. These findings agree with a number of studies that nature-based tourists want to satisfy motives of learning about their environments in addition to gaining an affective encounter (Wurzinger and Johansson, 2006; Tangeland and Aas, 2011).

There were significant increases in visitor satisfaction after using interpretive sheets in terms of provision of information and learning about the rainforest. The research here shows that interpretation was of interest to visitors and it supports the contention that visitors to nature-based attractions without interpretative opportunities can desire cognitive stimulation through information provision (Stein and Lee, 1995). Additionally, the satisfaction gained from sharing knowledge with others was higher for those visitors who used interpretive sheets during their walk. The sheets thus prompt not only self-learning but also transmission of knowledge in the form of *in situ* teaching. The lesson here for tourism managers is that provision of interpretive information has the potential to significantly increase satisfaction across a range of elements, and possibly, as McNamara and Prideaux (2010) report for visitors to Australia's Wet Tropics, significantly increase the overall satisfaction with a rainforest visit. Interpretation might also encourage behavioural change

in visitors, leading to more responsible and hence sustainable consumption of the ecosystem (Moscardo 1999).

[b]Visitor dissatisfaction

There was incongruence between motivation, expectation and satisfaction with regard to viewing rainforest wildlife. Seeing wildlife was cited as a key reason to undertake the rainforest walk and yet visitors post-walk clearly expressed disappointment in not seeing more animals. This finding supports research from wildlife and protected area tourism, where visitor satisfaction has been shown to correlate strongly with numbers of animals/species viewed during visits (Lemelin and Smale, 2006; Lawton, 2012).

There is an important lesson here for tourism operators/managers. It is impossible to manufacture tourism-wildlife encounters in natural settings. The structure of the rainforest ecosystem, with its high density of trees and thick cover of foliage at multiple heights, tends to shield wildlife from the gaze of tourists. Such limited viewing opportunities can be seen in sharp contrast to the growing demands from wildlife tourists for close and intimate encounters with (often charismatic) species (Bulbeck, 2005). But whilst the environment defies management, the expectations of visitors need not. Tourists to rainforest sites need to be made aware that wildlife viewing is difficult and requires protracted time periods *in situ* to unite the rhythms of the visitor with those of nature. Marketing material educating tourists of this fact must be freely available, clear in message, and co-ordinated across a number of locations around the globe as international tourists undertake transitory and ephemeral visits, consuming one new location after another.

Nearly half of the visitors in this survey indicated that they would have liked more information before their visit. Thus, although there are practical considerations to face regarding how to target potential visitors, there is clearly a market for pre-visit information that can help to educate rainforest visitors about the difficulty of viewing certain species

and the greater reliability of viewing others. These extend beyond the charismatic species to those that tend to be smaller and/or functioning lower in food chains, thereby providing incentives for the holistic conservation of ecosystems and their diversity (Kerley et al., 2003). There is also a role here for interpretive guides on site to mediate the tourist experience, highlighting the small chance of viewing flagship species, whilst fostering visitor interest in the more accessible ecosystem components.

[a]Conclusions

The results from this research need to be viewed in light of certain limitations. First, the sample was drawn from visitors to a single rainforest site, undertaking largely passive activities and hence possibly prone to possess more favourable attitudes towards environmental interpretation (McNamara and Prideaux, 2010). The results cannot, therefore, be generalized without some caution to a wider group of visitors or environmental contexts. Secondly, tourist motivations are complex and dynamic and could perhaps be better elicited from in-depth interviews as opposed to quantitatively scoring items pre-designed by researchers. Thirdly, tourist satisfaction surveys based on similar researcher-defined items might mute the consumer voice and they are dependent upon the ability of tourists to rationalize their feelings effectively. Finally, long-term aspects of the satisfaction process, such as attitude changes, are ignored here as they can only be gauged by longitudinal assessment. Such a broader approach might elicit a fuller appreciation of what makes tourist experiences satisfying or dissatisfying.

Nevertheless, a need has been identified for realistic marketing to help manage tourist expectations, particularly in relation to wildlife viewing. This marketing must be co-ordinated internationally (extending beyond the good practice demonstrated, for example, by the Wet Tropics Management Authority) to ensure that a visit to any one rainforest site informs visitor expectations ahead of future alternative site visits. Equally, effective

communication on site can condition visitors to expect and subsequently enjoy contact with plants, lower food chain animals, or simply evidence of wildlife existence such as bird-song, animal tracks, spider webs, dens, etc. Visitors to the site were receptive to learning prior to and during their visit, which might encourage more responsible behaviour in the ecosystem. There is potential for rainforest sites to provide a holistic, and possibly more satisfying, experience for visitors by appealing to their cognitive as well as their affective domains. The key message is that whilst current visitors are largely satisfied with their rainforest encounter, continued monitoring and reflexive management of expectations and experiences can enable managers to enhance levels of satisfaction and sustainability into the future.

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Table 1 *Mean visitor motivation and satisfaction scores in relation to their rainforest experience.*

Motivation and satisfaction components	**Mean motivation score**	**Mean satisfaction score**	**Difference in ranking**
Encountering scenic beauty	3.66 (1)	4.25 (2)	-1
Seeing the rainforest wildlife	3.61 (2)	3.31 (13)	-11
Enjoying the sounds, smells, feel of the rainforest	3.56 (3)	4.16 (3)	0
Exploring something new and different	3.40 (4)	4.15 (4)	0
Having fun and enjoying yourself	3.36 (5)	4.10 (5)	0
Encountering the rainforest structure and trees	3.22 (6)	4.32 (1)	+5
Learning about the rainforest	2.97 (7)	3.57 (9)	-2
Escaping from the stress of everyday life	2.79 (8)	3.99 (6)	+2
Taking exercise	2.63 (9)	3.72 (8)	+1
Being creative such as painting or taking photos	2.54 (10)	3.34 (12)	-2
Doing something to tell friends about	2.50 (11)	3.74 (7)	+4
Gaining a sense of rainforest history	2.44 (12)	2.88 (15)	-3
Sharing your knowledge with others	2.40 (13)	3.25 (14)	-1
Being with friends and family	2.35 (14)	3.54 (=10)	+4
Passing time whilst in Queensland	1.83 (15)	3.54 (=10)	+5
Provision of rainforest information	NA	3.42	NA

Note: With reference to motivation: 1 is not at all important, 2 is slightly important, 3 is important and 4 is very important. With reference to satisfaction: 1 is very dissatisfied, 2 is dissatisfied, 3 is indifferent, 4 is satisfied and 5 is very satisfied.

Table 2 *Visitor expectations of the rainforest prior to their visit.*

Key themes	**Rainforest elements (frequencies) (N=265)**
Visual atmosphere	Green (67) Dark (59) Light (24) Beautiful (13) Also: colour, shady
Forest structure	Dense (81) Rainforest structure (40) Tall trees (36) Lush (30) Also: impenetrable, huge scale
Climate	Wet (48) Humid (42) Damp (32) Cool (15) Also: fresh, hot, rain
Diversity (of plants and animals)	Diverse (36) Variety of plants (31) Insects (29) Vegetation (23) Variety of wildlife (20)
Volume of flora and fauna	Lots of trees (40) Lots of wildlife (36) Some wildlife (33) Lots of birds(19) Also: abundant, full of life, lack of (visible) wildlife
Sound	Noisy (19) Birdsong (13) Quiet/calm (13)

Table 3 *Components of visitor satisfaction/dissatisfaction with the rainforest after their visit.*

Key themes	**Rainforest elements (frequencies) (N=265)**
Satisfaction	
Encounter with diversity (plant and animals)	Seeing wildlife (17) Some wildlife (14) Variety of plants (14) Trees (12) Vegetation (9) Rainforest structure (7) Diverse (7) Also: dense, scale, seeing rainforest, leaves, nature
Sensory immersion	Beauty/beautiful (28) Noise (21) Rainforest sound(s) (16) Close to nature/rainforest (15) Nice (10) Quiet (10) Bird sounds (6) Also: connection with nature, immersion, feel(ings), smell
Escape and novelty	Different (19) Calm (16) Quiet (10) Also: being alone, escape, freedom, relaxing, peaceful, exotic
Pristine nature	Unmanaged (10) Natural (10) Unspoilt (6) Also endemic, native, untouched
General experience and learning	Information (33) Met general expectations (18) Learning (15) Good walk (12) Close to the rainforest (9) Surpassed expectations (9) Also: linking of knowledge with examples
Dissatisfaction	
Wildlife viewing	Lack of (visible) wildlife (69)
Disturbance	Damage (particularly from pigs) (10)
Personal comfort	Muddy (14) Also: mosquitoes, dangerous, scary