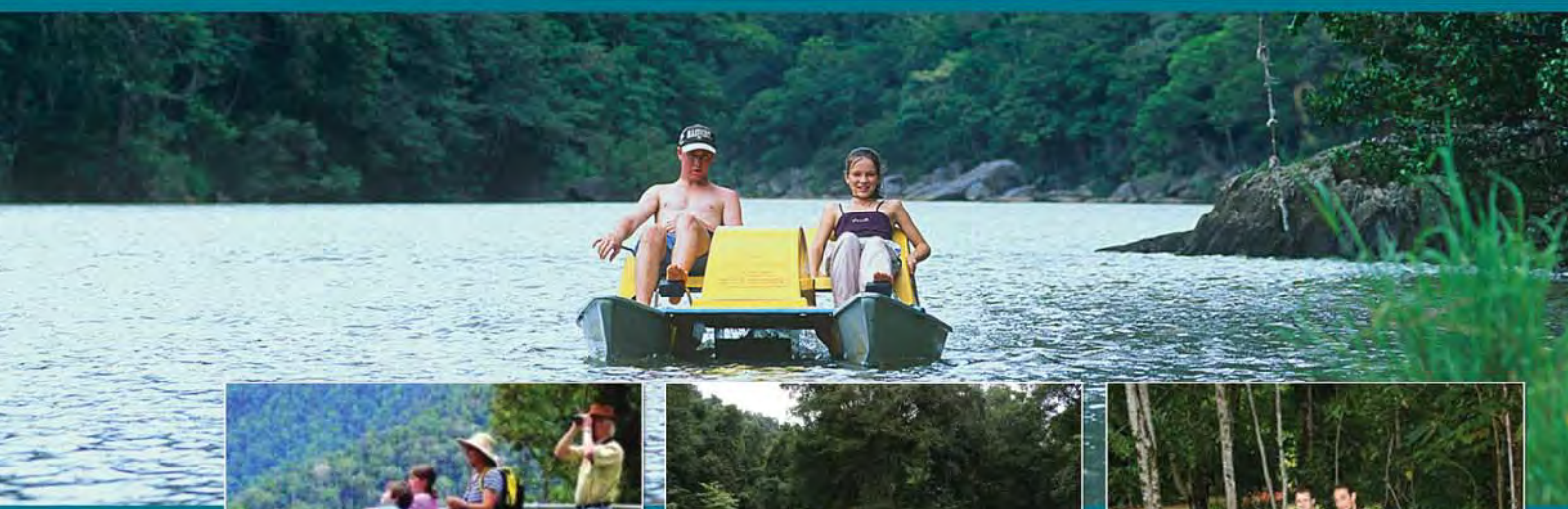




Sustainable Nature Based Tourism: Planning and Management

Report on Visitation and Use, 2009/2010



Julie Carmody and Bruce Prideaux



Australian Government
Department of the Environment,
Water, Heritage and the Arts



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Sustainable Nature Based Tourism: Planning and Management

Report on Visitation and Use, 2009/2010 Executive Summary

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Australian Government

**Department of Sustainability, Environment,
Water, Population and Communities**

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Acronyms and Abbreviations

DERM	Queensland Department of Environment and Resource Management
JCU	James Cook University
MTSRF	Marine and Tropical Sciences Research Facility
N	Entire survey sample
n	Portion of survey sample
QPWS	Queensland Parks and Wildlife Service
WTMA	Wet Tropics Management Authority
WTWHA	Wet Tropics World Heritage Area

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Key Findings

The following key findings are based on a survey of 1,870 visitors to ten day and overnight visitor sites within the Wet Tropics World Heritage Area (WTWHA) undertaken between October 2008 and May 2010.

Respondent Profile

- Respondents included both domestic (64.3%) and international visitors (35.7%).
- Visitors ranged in age from 16 to 91 years, with the mean age being 40.3 years.
- Respondents were largely professionals (23.8%), retirees (15.6%) and students (14.7%).
- The largest group of respondents held a university education (43.5%) and 17.2% of these respondents were aged 20-29 years.

Travel Patterns

- Travel parties were mostly comprised of two adults travelling without children.
- Most respondents visited protected natural areas between 2-5 times per year (38.5%) and more than five times per year (37.9%).

Reasons for Visiting Sites within the Wet Tropics World Heritage Area

- The main reasons given for visiting WTWHA sites were to see the natural features and scenery, and to be close to and experience nature.
- Observing the scenery, short walks, photography/painting/drawing and relaxing were activities that were consistently enjoyed at the survey sites.
- Word of mouth, previous visits and travel guide books were given as the main sources of information used by visitors prior to visiting the survey sites.

Perceptions of the Natural Environment

- At all of the sites, the natural environment was considered interesting (mean=5.38), in good condition (5.32), appealing in terms of the scenic beauty (5.32) and well-managed (5.23).
- A desire to spend more time exploring the site was highest at Paluma (mean=5.10), Mamu Rainforest Canopy Walkway (5.07) and Henrietta Creek (5.02).

Perceptions and Use of the Site Facilities

- Strongest agreement that the site facilities appeared to be in good condition was recorded at Mamu Rainforest Canopy Walkway (mean=5.62), Wallaman Falls (5.19), Henrietta Creek (5.09) and Dubuji (5.08).
- Support for a permanent ranger presence at visitor sites was moderate (mean=4.02).
- Walking tracks, viewing platforms and boardwalks were the most used facilities.

Perceptions of Signage

- The Mamu Rainforest Canopy Walkway rated very highly on all aspects of the site's signage, with the exception of directional signage, which was not considered easy to find.
- Directional signage was considered the best at Wallaman Falls (mean=5.42), Mamu Rainforest Canopy Walkway (5.37) and Mossman Gorge (5.30).

- Aboriginal cultural information was considered most interesting and informative at Mamu Rainforest Canopy Walkway (mean=4.97) and Barron Falls (4.49).

Satisfaction with the Visitor Experience

- The perception that there were too many people at a site was strongest at Mossman Gorge (mean=3.01) and Kulki (2.58).
- The presence of other people preventing a respondent from doing what they wanted was highest at Mossman Gorge (mean=2.32) and Lake Tinaroo (2.06).
- The behaviour of others detracting from the respondent's visitor experience was strongest at Lake Tinaroo (mean=2.69) and Mossman Gorge (2.13).



Figure 1: Map showing location of 2009/2010 Wet Tropics visitor survey sites: (1) Emmagen Creek, (2) Kulki, (3) Dubuji, (4) Mossman Gorge, (5) Barron Falls, (6) Lake Tinaroo, (7) Henrietta Creek, (8) Mamu Rainforest Canopy Walkway, (9) Wallaman Falls and (10) Paluma.

1. Introduction

This document is an executive summary of ten companion reports that examined visitor activity at selected sites within the Wet Tropics rainforests during 2009/2010. The aim of the research was to provide a snapshot of visitor activity to inform management on how sites are being used and investigate visitors' views on site management. Visitor data was collected using a self completed visitor survey. Collectively, the series of reports provides an overall understanding of how visitors use the rainforest at both low and high visitation sites, and provide managers with feedback that can be used for site management and future planning.

Responsibility for the management of the Wet Tropics rainforests is shared by the Wet Tropics Management Authority and the Queensland Department of Environment and Resource Management (DERM). The Authority was established after listing of the Wet Tropics as a World Heritage site and is responsible for the planning of visitor sites across the Wet Tropics World Heritage Area. The Queensland Parks and Wildlife Service, an agency of DERM, has responsibility for the day to day management of national parks and State forests, including those in the World Heritage Area. This includes responsibility for site infrastructure, including day use and camping areas, toilets, car parking, signage, viewing lookouts, boardwalks, approximately 150 walking trails, and pest and fire management. The Wet Tropics has a large number of visitor sites, some of which have high rates of visitation.

1.1 Survey Sites

The Wet Tropics World Heritage Area (WTWHA) covers 894,000 square kilometres and stretches from north of Townsville to just south of Cooktown along the north-eastern Queensland coast. The area was World Heritage listed in 1988, and the Wet Tropics Management Authority was formed in 1989 to manage the diverse stakeholders and landscapes of this special area.

Visitor activity at ten sites within the WTWHA was the focus of the research. Refer to the site reports by **Carmody and Prideaux (2011a-j)** for individual studies of visitation and use at the ten selected sites. A brief description of each site is provided.

Emmagen Creek is located in the northern section of Daintree National Park, approximately nine kilometres north of Cape Tribulation village. Emmagen Creek is the last visitor site in the Daintree National Park and the first creek crossing on the Bloomfield Track. The site is undeveloped, with no built facilities. A sign indicates the presence of crocodiles and a short track connects the road to a freshwater swimming hole, although the track leading to the swimming hole is not well marked. Car parking is available along the side of the road and in one poorly maintained pull-off area.

Kulki visitor site is located in the Cape Tribulation section of Daintree National Park. The site forms part of the traditional land of the eastern Kuku Yalanji people. The visitor site was opened in 1988 and upgraded in 1997 with funds from the Daintree Rescue Program. Up to the early 1980s the beach was used as a road for vehicles travelling to campsites further north. The Kulki visitor site (formerly known as the Cape Tribulation site) is the most northern developed visitor site within this section of Daintree National Park and is managed by the Queensland Parks and Wildlife Service (QPWS). The main facilities are a walkway that connects the car park to the beach and a 600 metre boardwalk that commences at the picnic area and extends up a ridge to a lookout named in honour of two senior Yalanji custodians, Numbaji and Jinabaji.

Dubuji is located just south of Cape Tribulation village and provides access to Myall Beach. The site, now part of Daintree National Park, was formally part of a logging lease before

being purchased in the 1970s by alternative lifestylers who established a commune and fruit orchard. The site was purchased as part of the Daintree Rescue Program in 1996 and has since been revegetated and developed as a visitor site. The major feature of the Dubuji visitor site is a 1.2 kilometre boardwalk that connects the site's parking area with Myall Beach. Visitor facilities include picnic tables, gas barbeques, composting toilets and a large shelter with interpretative signage. Many of the picnic tables are protected from the weather. A number of interpretative signs have been provided to allow visitors to understand aspects of the site's natural heritage. Camping is prohibited at Dubuji.

Mossman Gorge visitor site is located in the southern section of Daintree National Park. The land tenure of the Mossman Gorge site is shared by three parties: the Kuku Yalanji Aboriginal tribe on whose traditional land the site is located; the Cairns Regional Council which owns the site's access road and carpark; and DERM which has responsibility for management of the visitor site. The Mossman Gorge visitor area is for day use only, with the main attraction being the Mossman River and gorge. There are two walking tracks at the site. The shorter circuit walk runs alongside the river before circling around the forest back to the carpark. A longer circuit walk extends off the shorter walk and takes in the Rex Swinging Bridge.

Barron Falls is located within Barron Gorge National Park (Din Din National Park) and was gazetted in 1940 under the provisions of *The State Forests and National Parks Act* (1906). Prior to this, the park was known as the Barron Falls Reserve for Park (R167) (Martin, 2008). The park covers an area of 28 square kilometres (2,833 hectares) and is located in the northern section of the WTWHA. The most significant feature of the park is Barron Falls. During the wet season, the falls provide spectacular views which can be seen from the nearby railway station viewing platform. The park has two principle sections – the upper section containing Barron Falls and a lower section accessible via Lake Placid Road. The research discussed in this report was undertaken at the Barron Falls section. Access to the waterfall viewing platform is gained via a boardwalk that commences at the visitor car park and finishes at a lookout built near the Barron Falls railway station. The boardwalk includes elevated sections through the forest and hardened walkways on the forest floor. Toilet facilities were recently constructed and opened in 2010. Interpretative signage installed along the boardwalk and at the railway platform informs visitors about the park's flora and fauna, European history and Djabugay Traditional Owners.

Lake Tinaroo is a popular camping, fishing and water sports area located on the Atherton Tablelands. Campsites at Lake Tinaroo are accessed from Danbulla Forest Drive, a 28 kilometre unsealed road that runs from Boar Pocket Road near the top of Gillies Highway to the dam wall in the vicinity of the Kairi township. Lake Tinaroo was formed after the damming of the Barron River in 1959. Taking six years to build, the dam has a capacity of 400,000 megalitres and is used primarily for irrigation. At maximum capacity the dam has more than 200 kilometres of shoreline, making it an ideal recreation site. The eastern and northern sections of the lake abut Danbulla National Park and State Forest, which encompasses more than 12,000 hectares of pine plantations and eucalypt and acacia forests, and are included in the WTWHA. The traditional owners of Danbulla are two clan groups of the Yidinji people – the Dulguburra Yidinji and the Tableland Yidinji. Commercial farming began in the area in 1917 and during World War II the area was used as a military training area by Australian and US forces. Five lakeside campgrounds are accessible from Danbulla Forest Drive: Platypus Rock (18 campsites); Kauri Creek (accommodating up to 100 people); Downfall Creek (up to 200 people); School Point (8 campsites); and Fong-on-Bay (up to 250 people). These campgrounds are available for day use as well as overnight camping and are maintained by QPWS rangers.

Henrietta Creek in Wooroonooran National Park is located approximately 38 kilometres west of Innisfail on the Palmerston Highway. It is a dual purpose site used by day visitors and

overnight campers. Three numbered camping sites, as well as several unnumbered camp sites cater for campervans, motor homes, caravans and tents. The Henrietta Creek site can accommodate a maximum of eighty overnight visitors and available facilities include composting toilets, picnic tables, a shelter shed and a gas-powered barbecue. A self registration camping booth is located near the entrance to the site. There are two swimming holes, one at Gooligan Creek and the other in Henrietta Creek. A 350 metre walking track through a section of forest that includes native banana trees provides access to the Gooligan swimming hole. A 6.6 kilometre walking track beginning to the west of the Henrietta Creek camping area leads to Silver Falls and Nandroya Falls. Interpretive signage located on the bridge explains the presence of platypus and the area's high rainfall.

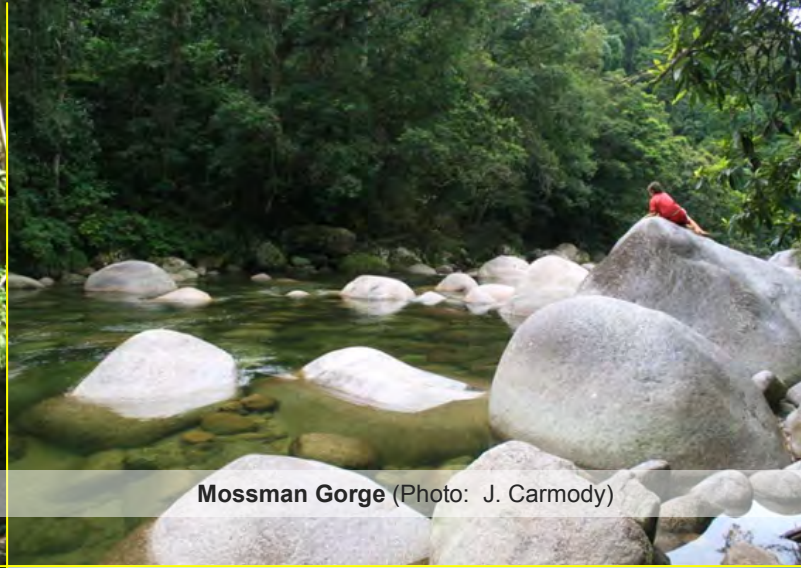
Mamu Rainforest Canopy Walkway is located 115 kilometres south of Cairns on the Palmerston Highway in the traditional country of the Ma:Mu Aboriginal people. The site is located on the eastern edge of the WTWHA and Wooroonooran National Park near Crawford's Lookout. The walkway was built in an area of forest that suffered considerable damage from Severe Tropical Cyclone *Larry* in 2006 and was opened on 25 August 2008. The walkway is the only QPWS site that operates on a commercial basis and is the only visitor site that charges an admission fee. The site features a 2.5 kilometre return walk that leads visitors to a 37 metre high observation tower that overlooks the North Johnstone River. The forest walk provides access to a cantilever walkway and platform providing views of the gorge below and a 350 metre elevated walkway that winds through the rainforest canopy providing opportunities for viewing birds, wildlife and flowers at the canopy level.

Wallaman Falls is located 51 kilometres west of Ingham within Girringun National Park. The traditional owners are the Warrgamaygan Aboriginal people. Girringun National Park (formerly Lumholtz National Park) was gazetted in 2003 and covers an area of 204,280 hectares. The site has two day use visitor areas. A lookout at the top of the falls provides a spectacular view of Wallaman Falls. Visitors also have the option of walking to the base of the falls via the strenuous two kilometre return 'Jinda Walk'. Picnic tables, toilets and interpretative signage are provided at the day use lookout site. A second day use area that also incorporates a campground is located approximately one kilometre from the lookout site. The campground has a carrying capacity of 80 persons and a self-registration booth. Camping permits may also be obtained from the DERM website. Site facilities include barbecues, toilets, a cold water shower, public telephone and water taps. Interpretative signage is provided at the day use area carpark adjacent to the entrance of a short 800 metre return walk (Banggurruru) to the rock pools where swimming is permitted.

The small mountaintop township of **Paluma** is located about sixty kilometres north of Townsville. Access is gained via the Mt Spec Tourist Road from the Bruce Highway. Paluma, with a population of 25, is surrounded by the World Heritage Area and has a much cooler climate than coastal cities and towns. Paluma has an international reputation as a birdwatching site and is the only site in the region where it is possible to find North Queensland's three species of bowerbirds (Golden Bowerbird, Tooth-billed Bowerbird and Satin Bowerbird). Other significant species include the Victoria's Riflebird and Spotted Catbird. The rich biodiversity of the area makes it a popular area for researchers. The Paluma visitor area comprises the township, rainforest walks and a nearby lake built to supply water to Townsville. Five walks are located in the Paluma area. A short *Senses Trail* is located next to the Paluma Environmental Education Centre in town.



Emmagen Creek (Photo: J. Carmody)



Mossman Gorge (Photo: J. Carmody)



Kulki boardwalk (Photo: J. Carmody)



Barron Falls (Photo: WTMA)



Kulki (Photo: J. Carmody)



Barron Falls boardwalk (Photo: B. Prideaux)



Dubuji day area (Photo: J. Carmody)



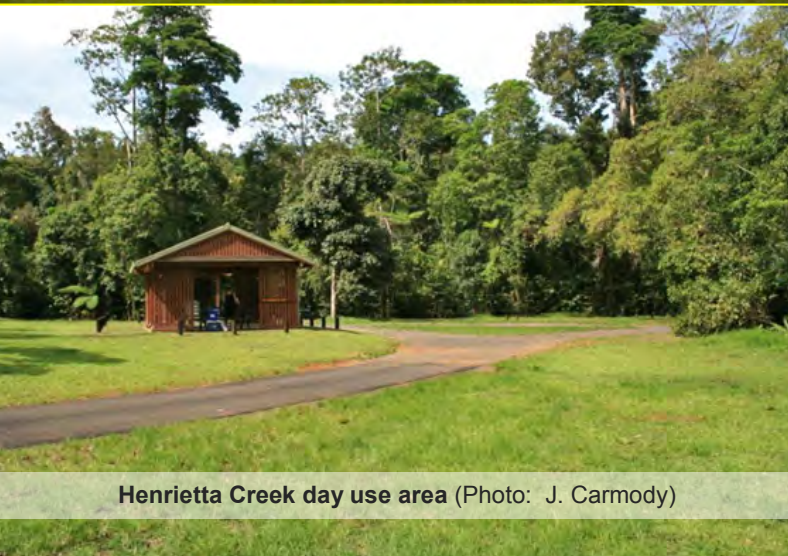
Lake Tinaroo (Photo: D. Souter)



Lake Tinaroo camping area (Photo: J. Carmody)



Wallaman Falls (Photo: WTMA)



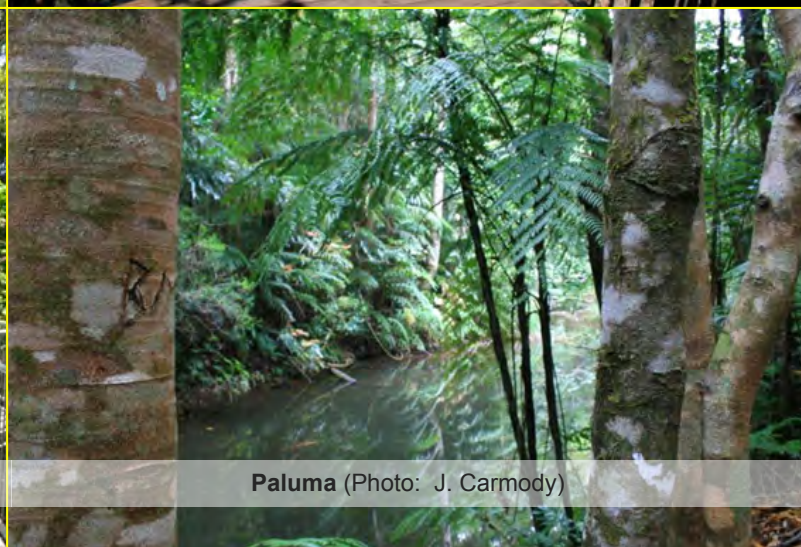
Henrietta Creek day use area (Photo: J. Carmody)



Wallaman Falls (Photo: F. Falco-Mammone)



Mamu Rainforest Canopy Walkway (Photo: J. Carmody)



Paluma (Photo: J. Carmody)



Mamu Rainforest Canopy Walkway (Photo: J. Carmody)



Paluma birdlife (Photo: J. Carmody)

1.2 Previous Research

The *Wet Tropics World Heritage Protection and Management Act* (1993) provided for the establishment of the Wet Tropics Management Authority and a range of administrative processes that would ensure appropriate protection of the World Heritage Area (WTMA, 2008). WTMA has devoted considerable resources to understanding visitor and community perceptions and use of the WTWHA since its inception in 1992.

The first visitor use monitoring strategy was commissioned by WTMA in 1993 to gain an understanding of visitor use and travel patterns. Manidis Roberts Consultants conducted visitor surveys during the wet season (March/April) and again in the dry season (September/October) across 56 individual visitor sites and three conglomerate sites within the WTWHA. The research approach included traffic counts, site observations and visitor interviews. Three different surveys were used: one for independent travellers, one for those travelling with a commercial operator and one left at sites as a self-registration survey.

In 2001/2002, a comprehensive visitor survey and monitoring of ten visitor sites was completed. The study included traffic counter data, site observations and visitor surveys. Ten sites were investigated: Barron Falls, Lake Barrine, Henrietta Creek, Mossman Gorge, The Crater, Murray Falls, Davies Creek, Big Crystal Creek, Goldsborough Valley and Marrdja Boardwalk. Comparative data from the three repeated sites of Barron Falls, Mossman Gorge and Henrietta Creek (Bentrupperbäumer, 2002a-c) are included in this executive summary (Appendices 3, 4 and 5).

1.3 Traffic Counter Data

Refer to the companion site reports (Carmody and Prideaux, 2011a-j) for traffic counter and toilet counter data.

2. Methodology

The aims of the research were to:

- Investigate visitor activities undertaken at the selected visitor sites; and
- Identify visitors' views about aspects of each site including site management.

Specific objectives of the research were to:

- Provide a snapshot profile of visitors to each site;
- Understand visitors' perceptions of site management;
- Understand visitors' perceptions of the natural environment at each site;
- Gain an understanding of visitors' travel patterns within the Wet Tropics region; and
- Assess the suitability of interpretative information provided at each site.

This research complements earlier research (Carmody and Prideaux, 2008) that investigated how local residents used the Wet Tropics and their views on its management.

2.1 Survey Instrument

To collect data on a range of issues related to visitor expectations and experiences, a survey (Appendices A, B) was developed in conjunction with officers from the WTMA and DERM. The survey instrument was based on a previous survey used in 2001/2002 which enabled some general comparisons to be made with earlier research. The self-completed survey contained 29 closed and open-ended questions and provided space for respondents to write additional comments. Open-ended questions were used because they can test specificity of knowledge more effectively (as shown by Whitmarsh, 2009), provide richer responses (Altinay and Paraskevas, 2008) and can minimise social desirability bias (Budeanu, 2007). Survey questions were grouped into eight sections commencing with demographic data. Table 1 outlines the components of the survey. Survey staff recorded site details including location, date, time of collection and weather conditions on the front cover of the survey instrument.

Table 1: Components of the 2009/2010 Wet Tropics visitor survey.

Section A	Background information	Place of residence, occupation, education, age, gender
Section B	Travel and transport	Organised tour or free and independent traveller, travel party, mode of transport, pre- and post-visit of site, experience of protected natural areas
Section C	Reasons for visiting	Motivations, activities, time spent at site, willingness to pay
Section D	Natural environment	Perceptions of the natural environment
Section E	Site facilities	Use of site facilities, expectations of facilities, perceptions of facilities, ranger presence
Section F	Information	Prior information search, perceptions of on-site information, additional information required
Section G	Visitor experience	Aspects of visit that enhanced and detracted from experience, perceptions of crowding
Additional comments		Open-ended to allow for any comments and feedback

2.2 Survey Collection

Surveying was undertaken by experienced research assistants at each site using a convenience sampling technique. Visitors were approached and asked to complete the survey. The exception to this was surveying at Lake Tinaroo which involved visiting all campsites around the lake. The researchers explained the purpose of the survey and informed potential respondents that the survey would take approximately ten minutes to complete. On completion, a postcard or WTMA cassowary sticker was offered as a token of appreciation. Table 2 outlines the schedule and collection of surveys at the ten sites.

Collection periods were originally budgeted for four days per site. A target for the number of surveys for each site was also set at 100 each for Emmagen Creek and Henrietta Creek; 300 surveys for Mossman Gorge and Barron Falls and 200 surveys for the remaining sites. Not all targets were achieved. The reality of survey collection is that unless sampling is conducted over a 12 month period caution must be exercised when generalising results. At the Mamu Rainforest Canopy Walkway, walkway staff undertook surveying over 51 days. Aside from the walkway, a total of 47 days were spent in the field by James Cook University research assistants collecting surveys at the remaining nine visitor sites. Some sites pose inherent difficulties for surveying. For example, Emmagen Creek (n=36) is adjacent to the Bloomfield-Cooktown track and few people stop at the site. Similarly, many visitors use the Henrietta Creek visitor site (n=96) as a toilet stop, and don't use any of the other facilities (e.g. walking tracks). Because of their popularity and heavy use by visitors a large number of surveys were collected at Mossman Gorge (n=358) and Barron Falls (n=294). Refer to individual visitor site reports for detailed collection times and dates.

Table 2: Wet Tropics visitor survey collection times and details (N=1,870).

Site	Collection Period	Collection Days	Frequency	Percentage of Total
Mossman Gorge	Apr 2009 – Sept 2009	6	358	19.2
Barron Falls	Mar 2009 – Jun 2009	6	294	15.7
Lake Tinaroo	Dec 2008 – Aug 2009	4	229	12.2
Dubuji	Oct 2008 – Apr 2010	7	219	11.7
Kulki	Aug 2009 – Oct 2009	4	204	11.0
Mamu Rainforest Canopy Walkway	Apr 2009 – Jul 2009	51	181	9.7
Wallaman Falls	Apr 2010	4	135	7.2
Paluma	Sept 2009	4	118	6.3
Henrietta Creek	Oct 2009 – May 2010	7	96	5.1
Emmagen Creek	Oct 2008 – Apr 2010	5	36	1.9
Total		98	1,870	100%

2.3 Non-response and Observations

Refusals to complete the survey were recorded on-site and are presented in Table 3. Of the 2,521 people who were approached to complete a survey, 25.8% refused (n=651). The most significant reasons given for not participating in the survey were a lack of time (n=212), not interested (n=144) and with a tour group (n=143). Refusals were highest at Mossman Gorge (n=298).

Table 3: Reasons given for not participating in the visitor survey (n=651).
Note: Refusals were not recorded at Mamu Rainforest Canopy Walkway.

Reason	Barron Falls	Dubuji	Emmagen Creek	Henrietta Creek	Kulki	Mossman Gorge	Paluma	Lake Tinaroo	Wallaman Falls	Mamu Rainforest Canopy Walkway	Total
Frequency (n)											
Don't have the time	64	25	5	8	21	61	13	0	15	-	212 (8.4%)
Not interested	20	13	2	6	11	56	2	29	5	-	144 (5.7%)
With tour group	-	7	5	-	-	131	-	-	-	-	143 (5.7%)
Language barrier	24	3	-	4	9	32	3	1	10	-	86 (3.4%)
Children – impatient/ upset	16	-	-	-	-	17	-	-	-	-	33 (1.3%)
Completed the survey at another site	3	-	-	-	-	-	-	2	-	-	5
My partner can do it	-	-	-	-	-	-	5	-	-	-	5
On holiday	-	-	-	-	4	-	-	-	-	-	4
No reading glasses	2	-	-	1	-	-	-	-	-	-	3
Just arrived	-	-	-	-	-	-	-	3	-	-	3
The survey is too long	-	-	1	-	-	1	-	-	-	-	2
Do not like surveys	-	-	-	-	-	-	2	-	-	-	2
Surveys not returned	-	-	2	-	-	-	-	-	-	-	2
No, I'm working	-	-	-	-	2	-	-	-	-	-	2
Not returning this way	1	-	-	-	-	-	-	-	-	-	1
No, thanks	-	1	-	-	-	-	-	-	-	-	1
Illiterate	-	-	-	1	-	-	-	-	-	-	1
Just leaving	-	-	-	-	-	-	-	1	-	-	1
Hungry	-	-	-	-	1	-	-	-	-	-	1
Total	130	49	15	20	48	298	25	36	30	-	651

2.4 Limitations

There were several limitations associated with the research that should be considered prior to generalising the results:

- First, the survey was conducted using a convenience sampling approach over a short time period, therefore the results may not be representative of all visitor segments to each visitor site;
- Second, the sample size was limited by time and budget constraints;
- Third, the survey was only available in English, resulting in a possible under-reporting of some nationalities visiting each site;
- Last, consideration should be given to the potential for social desirability bias occurring where respondents offered answers that are seen to be desirable or acceptable but may not reflect their true opinions. In most cases it is difficult to determine the level of social desirability for any given question.

Understanding the results

The survey made use of both closed questions with specific response options and open-ended questions. The advantage of using closed questions is that it allows the researcher to investigate specific issues of interest while open-ended questions provide a good indication of top-of-mind responses and concerns of survey participants. Closed response questions generally asked respondents to use a six-point Likert scale. In the following discussion the results of closed questions are reported as means and as the percentage breakdown by the six items on the Likert scale. Means are useful for ranking in order of importance while percentage breakdown gives a clearer indication of the strength of agreement or disagreement with a statement. The following discussion should be read with these considerations in mind.

It should also be noted that not every question was answered by all respondents thus the 'n' values of tables and figures may vary depending on the level of response for individual questions.

3. Findings

The results presented in this report are from the Wet Tropics Visitor Site Level Survey undertaken at ten identified visitor sites between 2008 and 2010.

3.1 Respondent Profile

Slightly more females (52.2%) than males (47.8%) completed the survey (N=1,870).

Place of Residence

Respondents' places of residence are provided in Table 4. More domestic respondents (64.3%) than international respondents (35.7%) were surveyed. The largest groups of domestic respondents were from Far North Queensland (26.6%) and New South Wales (12.2%). International respondents were largely from Europe (16.7%), the United Kingdom (9.7%) and North America (6.3%). Europeans were mostly from Germany (5.8%), France (3.5%) and 'Other' Europe (3.3%).

Table 4: Origins of survey respondents (n=1,822).

	Frequency (n)	Percent (%)
DOMESTIC		
Far North Queensland	484	26.6
New South Wales	222	12.2
Other Queensland	188	10.3
Victoria	157	8.6
Western Australia	56	3.1
South Australia	42	2.3
Tasmania	14	0.8
Northern Territory	8	0.4
Domestic Total	1,171	64.3
INTERNATIONAL		
England/UK	177	9.6
North America	114	6.3
Europe	302	16.6
New Zealand	27	1.5
Other	16	0.9
Asia-Pacific	15	0.8
International Total	651	35.7
Total Domestic and International	1,822	100.0

Occupation

The occupation of the respondents is provided in Figure 2. The largest occupational group was professionals (23.8%), followed by retirees (15.6%) and students (14.7%). Students were significantly more likely to be international visitors, while retirees were predominantly domestic visitors. Self-employed respondents were mainly domestic visitors (8.0%).

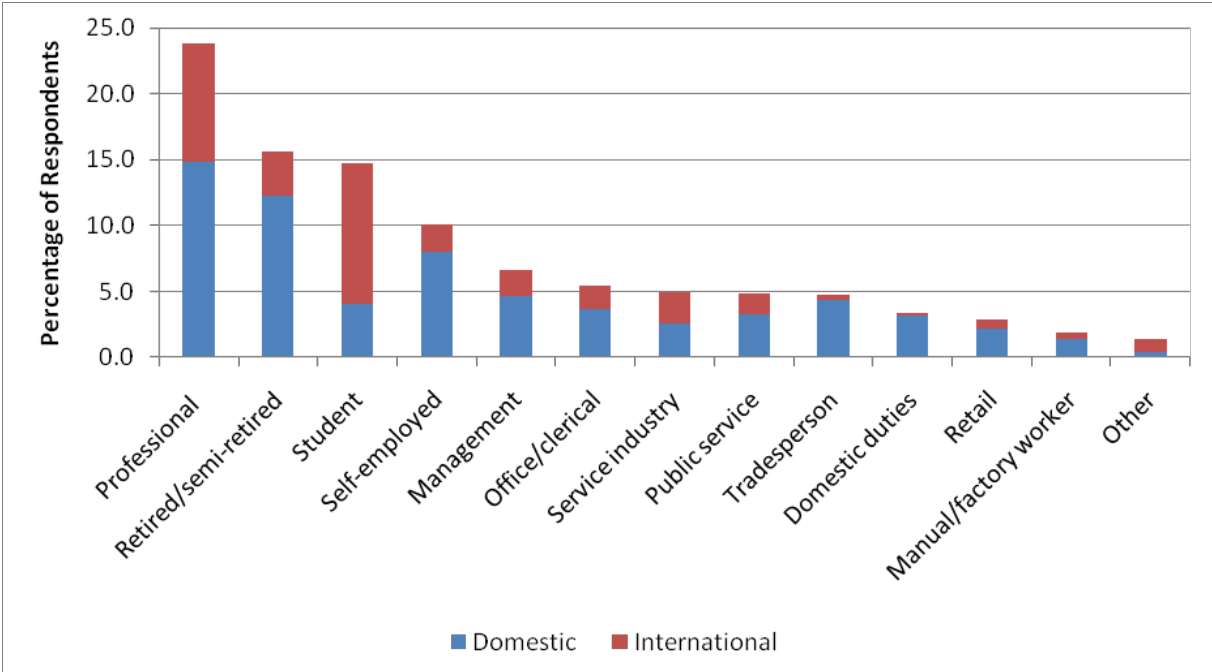


Figure 2: Occupations of survey respondents (n=1,858).

Age

The minimum age for a respondent to participate in the research was 16 years.

Figure 3 compares the age and origin (i.e. domestic or international visitors) of respondents. The largest group of respondents was aged 20-29 years (30.7%), consisting of mostly international visitors (18.2%). Those aged 30-39 years were the second largest group of respondents (18.3%), with 12.8% of this age group being domestic visitors. Respondents aged 70 years or older (3.5%) and 20 years or younger (4.4%) were the smallest groups of respondents.

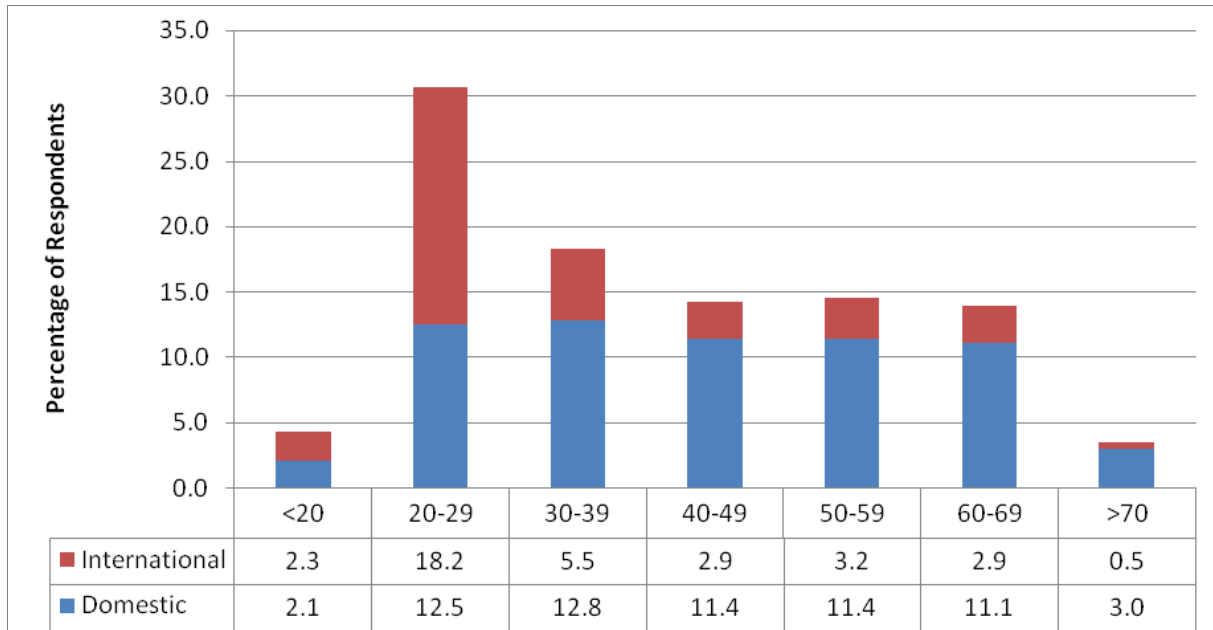


Figure 3: Age groups of survey respondents (n=1,843).

Figure 4 provides the comparative mean ages of respondents at each site and the average age of respondents for all sites. Across all ten sites, the average age of respondents was 40.3 years. Based on the mean, respondents were older at the Mamu Rainforest Canopy Walkway (51.7 years), Mossman Gorge (43.7 years) and Henrietta Creek (43 years). The youngest average age of respondents was recorded at Paluma (33.5 years). The oldest participant in the research was surveyed at Dubuji, aged 91 years old.

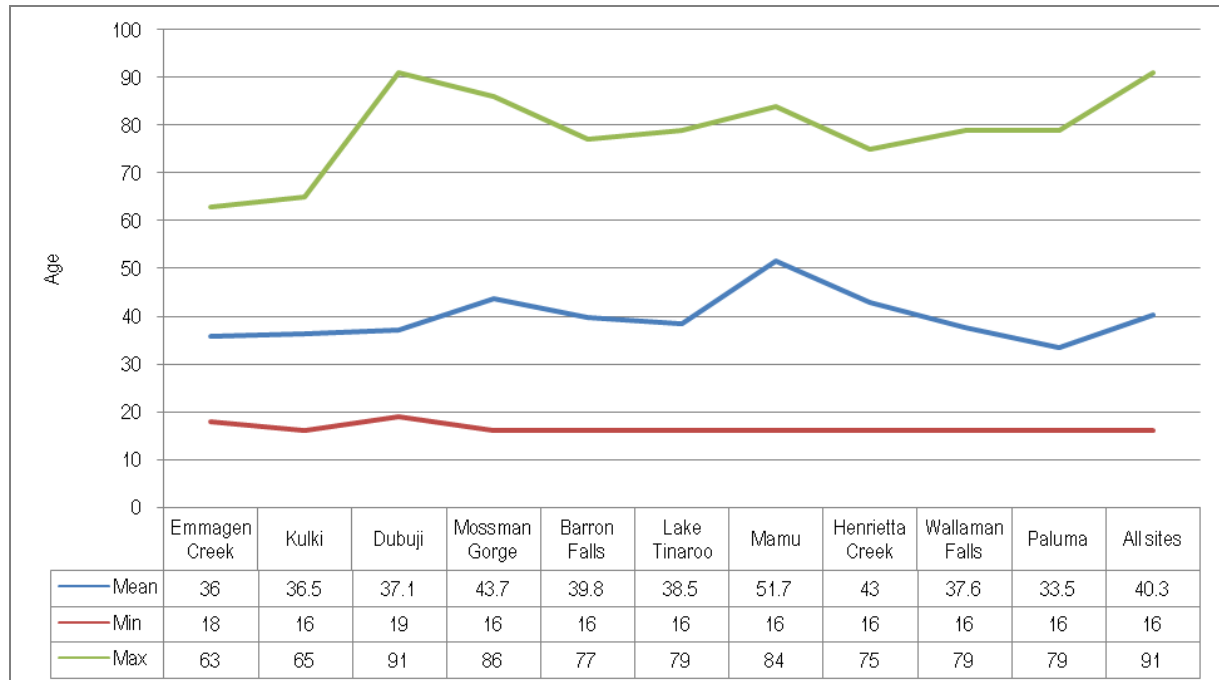


Figure 4: Comparison of mean visitor age at visitor sites (n=1,853).

Education

Figure 5 highlights survey respondents' education levels, where Tertiary A is defined as technical or further education, and Tertiary B is defined as a university qualification. For the whole sample, the majority of respondents possessed a Tertiary B level education (43.5%), followed by those with a secondary education (29.8%).

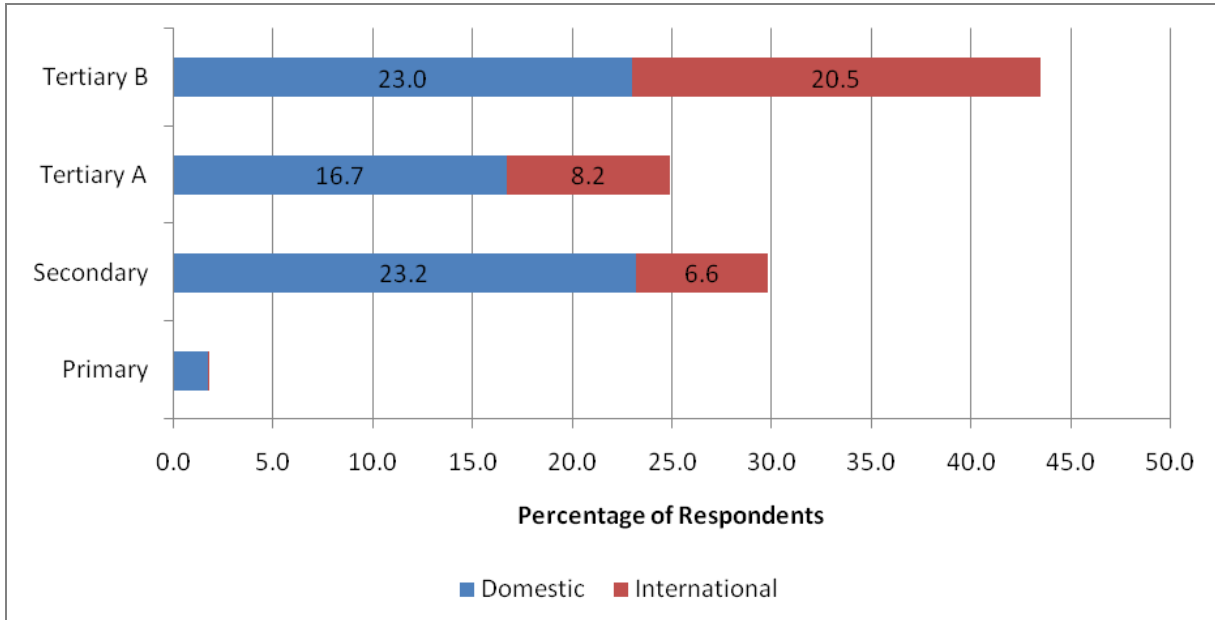


Figure 5: Levels of education attained by survey respondents (n=1,846).

A cross-tabulation analysis of respondents' age and education is provided in Table 5. The largest group of respondents had achieved a Tertiary B education and was aged 20-29 years (17.2%), followed by equally educated persons aged 30-39 years (9.2%).

Table 5: Respondents' age and education (n=1,825).

Age Group	Primary (%)	Secondary (%)	Tertiary A (%)	Tertiary B (%)
< 20 years	0.4	2.8	1.0	0.3
20-29 years	-	6.7	6.9	17.2
30-39 years	0.2	4.1	5.1	9.2
40-49 years	-	4.5	3.8	6.1
50-59 years	0.1	4.9	4.1	5.7
60-69 years	0.4	5.0	3.8	4.5
> 70 years	0.6	1.5	0.4	0.7
Total Respondents (n=1,825)	1.6% (n=30)	29.5% (n=539)	25.1% (n=457)	43.7% (n=797)
Domestic	1.5% (n=29)	23.0% (n=419)	16.9% (n=307)	23.1% (n=421)
International	0.1% (n=1)	6.5% (n=120)	8.2% (n=150)	20.6% (n=376)

Travel Party and Mode of Transport

Figure 6 illustrates the mode of transport used to travel to the visitor sites. Private vehicle (54.4%) followed by private hire vehicle (44.5%) were the two most common modes of transport reported by survey respondents. Other forms of transport used included public transport, bicycle and hitch-hiking.

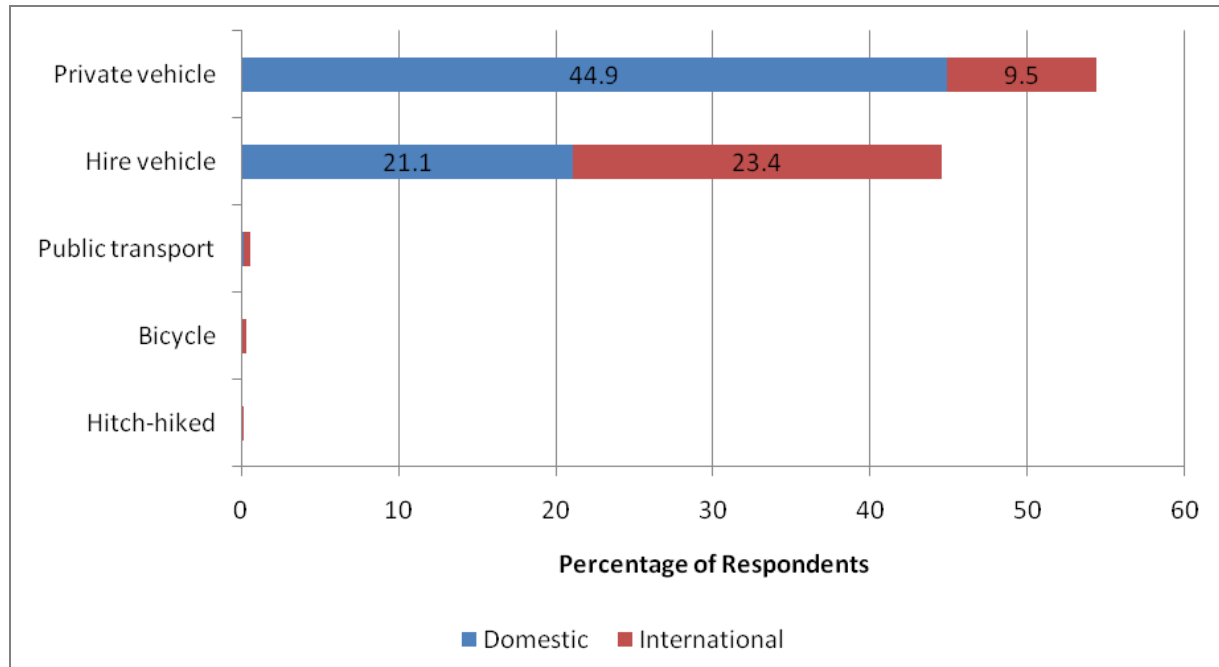


Figure 6: Modes of transport used by survey respondents (n=1,488).

Table 6 reports on travel party composition based on adults travelling with or without children. Most respondents were travelling as a couple with no children (n=836). Groups of four adults with no children (n=200) and groups of three adults (n=139) with no children were also significant. A number of respondents were travelling with children and were generally in a travel party of two adults and two children (n=74) or two adults and one child (n=59). The average number of adults per vehicle across the entire sample was 2.47 with a standard deviation of 1.46.

Table 6: Composition of visitor travel parties (n=1,581).

	1 adult	2 adults	3 adults	4 adults	5 adults	6 adults	7+ adults
0 children	89	836	139	200	37	2	4
1 child	9	59	11	14	1	-	-
2 children	7	74	24	9	2	2	-
3 children	6	38	6	1	-	-	-
4 children	1	6	-	1	-	-	-
5 children	-	1	-	-	-	-	-
6 children	-	-	-	2	-	-	-
Adults per vehicle 2.47 ± SD 1.46 (range 1-40)							
Children per vehicle 0.34 ± SD 0.82 (range 0-6)							

Organised Tour Visitors

Table 7 presents respondents who were travelling with an organised tour when surveyed. Organised tours were inherently difficult to survey due to tour itineraries and tight time schedules.

The largest group surveyed were with a James Cook University biodiversity class (n=40) in Paluma. The second largest grouping of respondents travelled on tours with 7-14 guests (n=32).

Table 7: Breakdown of survey respondents who were travelling with an organised tour operator (n=132).

Tour Operator	Number of guests on the tour				
	6 or less	7-14 guests	15-30 guests	30-50 guests	50+ guests
Adventure Tours	-	2	2	-	-
Atherton Seniors	-	-	-	2	2
Australian Agricultural College	-	4	-	-	-
Bartle Frere State School	-	-	3	-	-
Billy Tea Tours	-	5	-	-	-
BTS Tours	5	1	1	-	-
Can't recall	1	-	1	-	-
Cape Trib Tours	-	2	-	-	-
Cape Tribulation Connections	1	7	5	-	-
Connections	-	-	1	-	-
Contiki	-	2	-	-	-
Daintree Safaris	2	-	-	-	-
Daintree Wonder	2	-	-	-	-
Down Under Tours	-	1	1	1	-
Foaming Fury	-	-	-	2	-
Go Bush Safaris	-	1	-	-	-
JCU Biodiversity Class	-	-	-	40	-
Jungle Tours	2	1	3	-	-
People to People	-	-	-	6	-
The Traveller	-	-	1	-	-
Tony's	1	3	5	-	-
Trek North Safaris	-	1	1	-	-
Tribal Travel	2	-	-	-	-
Tropics Explorer	-	1	2	-	-
Viator – booking agent	-	1	-	-	-
Vintage Car Club	-	-	1	-	1
Wooroonooran Safaris	3	-	-	-	-
Adventure Tours	-	2	2	-	-
Total	19	32	27	51	3

Travel Flow

Travel flow reports on respondents' previous stop before reaching the survey site and the intended stop after leaving the survey site. Refer to individual visitor activity site reports for travel flow information (Carmody and Prideaux, 2011a-j).

Visits to Protected Natural Areas

Respondents were asked about the frequency of their visits to protected natural areas. As illustrated by Figure 7, most respondents indicated that they visited protected natural areas between 2-5 times per year (38.5%) or more than five times per year (37.9%). Only a very small number were on their first visit to a natural protected area (2.8%). There were no significant differences between domestic and international respondents and their frequency of visitation to protected natural areas.

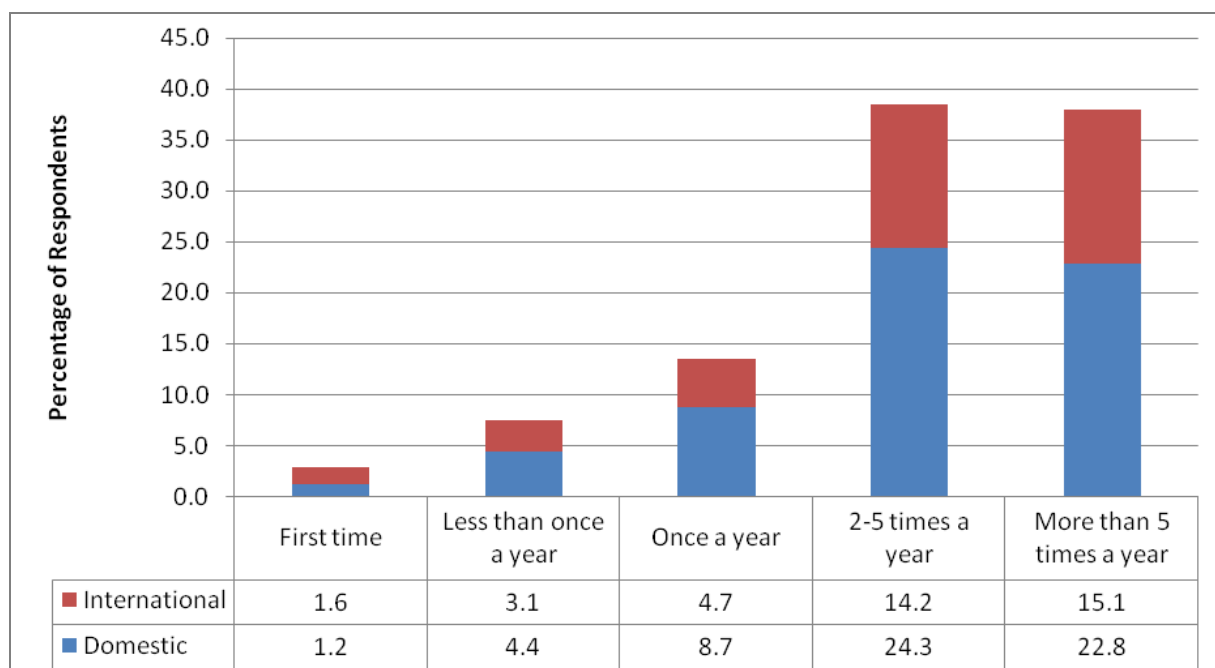


Figure 7: Survey respondents' frequency of visitation to protected natural areas (n=1,581).

Reasons for Visiting the Wet Tropics Visitor (Survey) Sites

Respondents were asked to respond to a series of questions about their motivations for visiting sites within the WTWHA. A six-point Likert scale of 1 (being 'not important') to 6 ('very important') was used. A mean of 4 or greater indicates that the motivation was slightly important to very important. For comparative purposes Table 8 provides an overall mean and the mean reported for each site.

The results indicate the most important reasons given for visiting sites within the WTWHA were to see the natural features and scenery (mean=5.14) and to be close to/experience nature (4.91). Dubuji at Cape Tribulation scored highest on both of these aspects (5.48 and 5.32 respectively). Surprisingly, the designation of the areas as being either National Park or World Heritage Area do not appear to have been considered as very important motivations for visiting. However, the importance of protecting these areas for their significant environmental values is evident with the desire to see the natural features and scenery. Similarly, experiencing tranquillity (mean=4.51), rest and relaxation (4.23) and opportunities for short walks (4.00) were motivations for visiting. These motivations are similar to those of the host community (Carmody and Prideaux, 2008).

Table 8: Comparison of visitors' motivations to visit the WTWHA survey sites.

Reasons for visiting	n	Overall Mean	Survey site									
			Emmagen Creek	Kulki	Dubuji	Mossman Gorge	Barron Falls	Lake Tinaroo	Mamu Rainforest Canopy Walk	Henrietta Creek	Wallaman Falls	Paluma
See natural features and scenery	1,801	5.14	5.23	5.41	5.48	5.34	5.14	4.15	5.15	5.19	5.40	4.94
Be close to/ experience nature	1,790	4.91	5.17	5.13	5.32	5.06	4.75	4.17	5.01	5.25	4.96	4.80
Experience tranquillity	1,770	4.51	4.69	4.34	4.35	4.61	4.40	4.69	4.80	4.66	4.50	4.22
Rest and relax	1,790	4.23	4.20	3.98	3.94	4.03	4.08	5.27	4.33	4.53	4.17	3.87
Opportunities for short walks	1,772	4.00	3.57	4.16	4.40	4.24	4.01	3.17	4.31	4.31	3.82	3.63
Outdoor exercise	1,778	3.98	3.60	3.65	3.97	4.10	4.13	3.96	4.42	4.06	3.93	3.64
Because it is a National Park	1,778	3.88	3.80	3.93	4.11	4.04	4.03	3.03	4.52	3.70	3.89	3.62
Because it is a World Heritage Area	1,774	3.79	3.71	4.17	4.26	3.98	3.82	2.78	4.45	3.25	3.54	3.26
Learn about native animals and plants	1,783	3.78	3.63	4.03	4.28	3.82	3.65	2.59	4.56	3.45	3.67	4.24
Socialise with family or friends	1,762	3.69	3.57	3.30	3.22	3.41	3.73	5.04	3.85	3.83	3.71	3.58
Opportunities for long walks	1,738	3.41	2.86	3.49	3.76	3.60	3.59	2.71	3.95	3.55	3.06	3.11
Learn about Aboriginal culture	1,753	3.04	3.18	3.49	3.45	3.18	3.19	1.83	3.92	2.73	2.84	2.21

The results outlined in Table 9 show the level of importance ascribed to each motive on a scale from not important to very important. The survey recorded high levels of agreement with the importance of seeing natural features and scenery (91.2%), experiencing nature (86.5%) and experiencing tranquillity (77.9%). Other significant factors were rest and relaxation (69.9%), outdoor exercise (62.6%) and opportunities for short walks (65.3%).

Table 9: Survey respondents' most cited reasons for visiting the WTWHA survey sites.

Reasons for visiting	Percentage of survey respondents (%)					
	Not important	Slightly important	Moderately important	Important	Quite important	Very important
See natural features and scenery	1.2	2.2	5.4	17.4	20.1	53.7
Be close to/ experience nature	1.7	3.3	8.5	18.9	24.2	43.4
Experience tranquillity	3.9	5.3	12.8	22.1	25.6	30.2
Outdoor exercise	7.4	10.3	19.7	22.2	20.3	20.1
Rest and relaxation	6.3	8.0	15.8	23.2	20.2	26.5
Because it is a National Park	10.5	10.4	19.3	21.5	17.5	20.8
Opportunities for short walks	7.9	9.3	17.5	23.4	23.6	18.3
Because it is a World Heritage Area	12.2	12.4	18.2	19.4	16.9	20.9
Socialise with family or friends	18.4	9.8	15.4	19.5	14.5	22.4
Learn about native animals and plants	8.9	13.0	21.3	22.2	17.3	17.4
Opportunities for long walks	16.5	15.4	20.1	18.9	16.3	12.8
Learn about Aboriginal culture	22.6	18.1	21.9	17.3	10.6	9.5

Activities

Respondents were asked to indicate which activities they had undertaken at the survey site based on a given list of possible activities. The most popular activity was to observe the scenery (81.1%), followed by short walks (67.6%), photography (60.7%) and relaxing (55.2%). Observing wildlife (46.1%) and birdwatching (33.7%) were also popular activities (Figure 8).

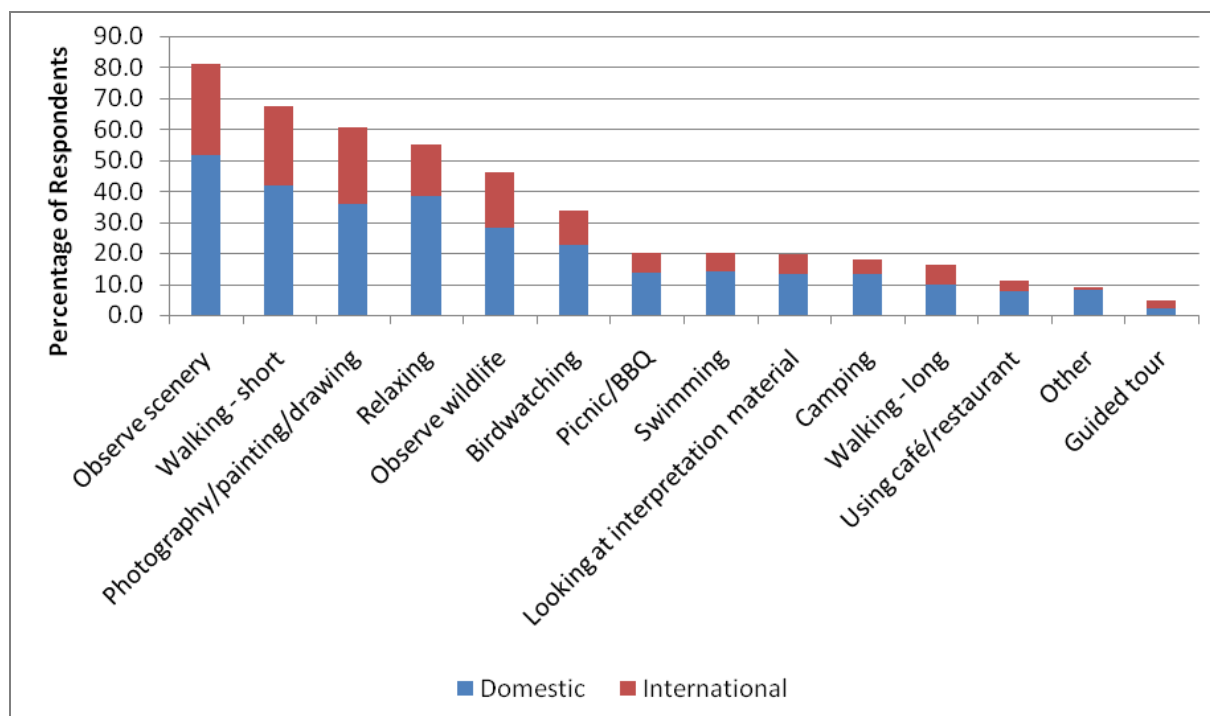


Figure 8: Activities undertaken at the ten WTWHA visitor sites as cited by survey respondents (n=1,834) in response to a multiple-response survey question.

Using an open-ended survey question, respondents were asked to indicate if there were activities that they would have liked to have participated in, but could not. One quarter of the surveyed visitors (25.0%, n=447) indicated there were activities they would have liked to have enjoyed at a site but were unable. Refer to individual reports for desired site specific activities (Carmody and Prideaux, 2011a-j).

Length of visit

Figure 9 illustrates the length of time visitors spent at the survey sites. The majority of respondents spent one hour or less at a site (55.5%). Respondents staying overnight or longer were recorded at Lake Tinaroo, Wallaman Falls, Henrietta Creek or Paluma, accounting for 14.8% of the sample. The remaining sites do not allow overnight camping.

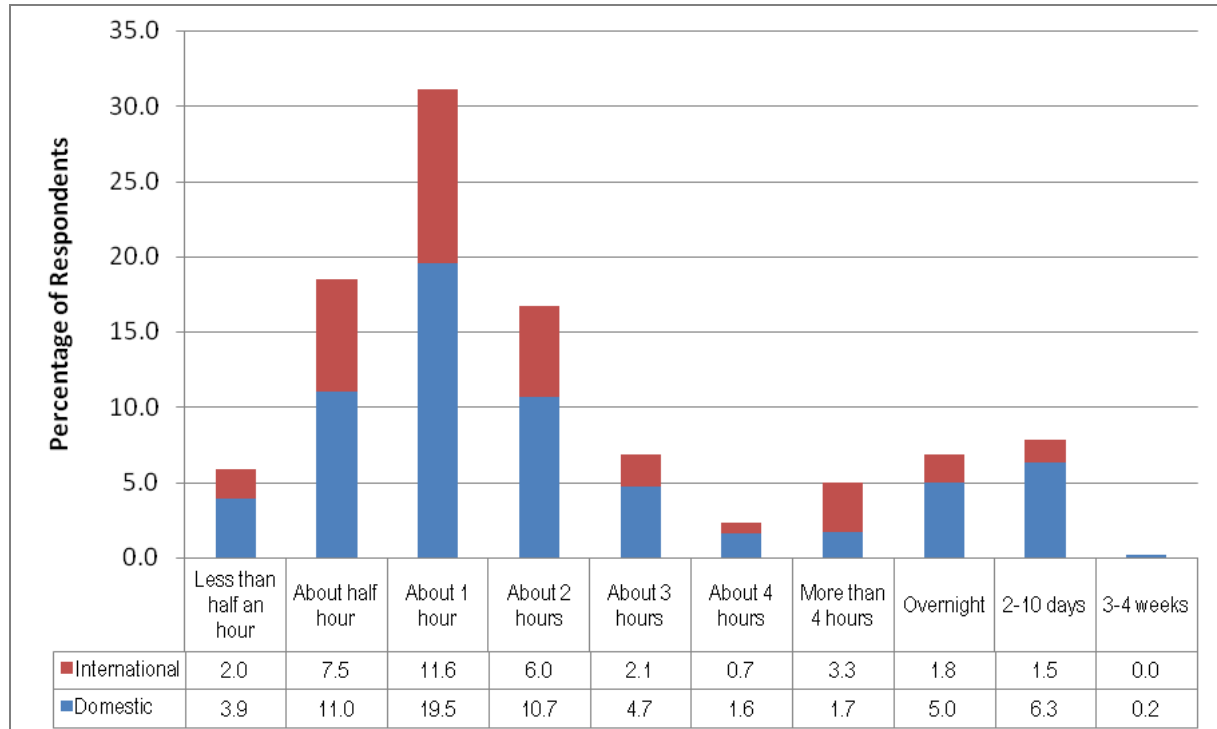


Figure 9: Approximate time spent at survey sites by both domestic and international visitors (n=1,844).

Willingness to Pay

Currently, visitors to protected natural areas in Queensland are not charged an access/entry fee. As an exploratory exercise, survey respondents were asked to indicate how much they would be prepared to pay if an entrance fee was introduced at the site where they were surveyed.

As illustrated by Figure 10, the majority of respondents did not think they should pay at all (41.1%), followed by those who would be willing to pay less than \$5 (38.1%). Only 3.4% of the sample indicated they would be willing to pay between \$10 and \$20. Domestic respondents aged 60-69 years and retired or semi-retired were more likely to indicate they should not pay an access fee ($p < .05$).

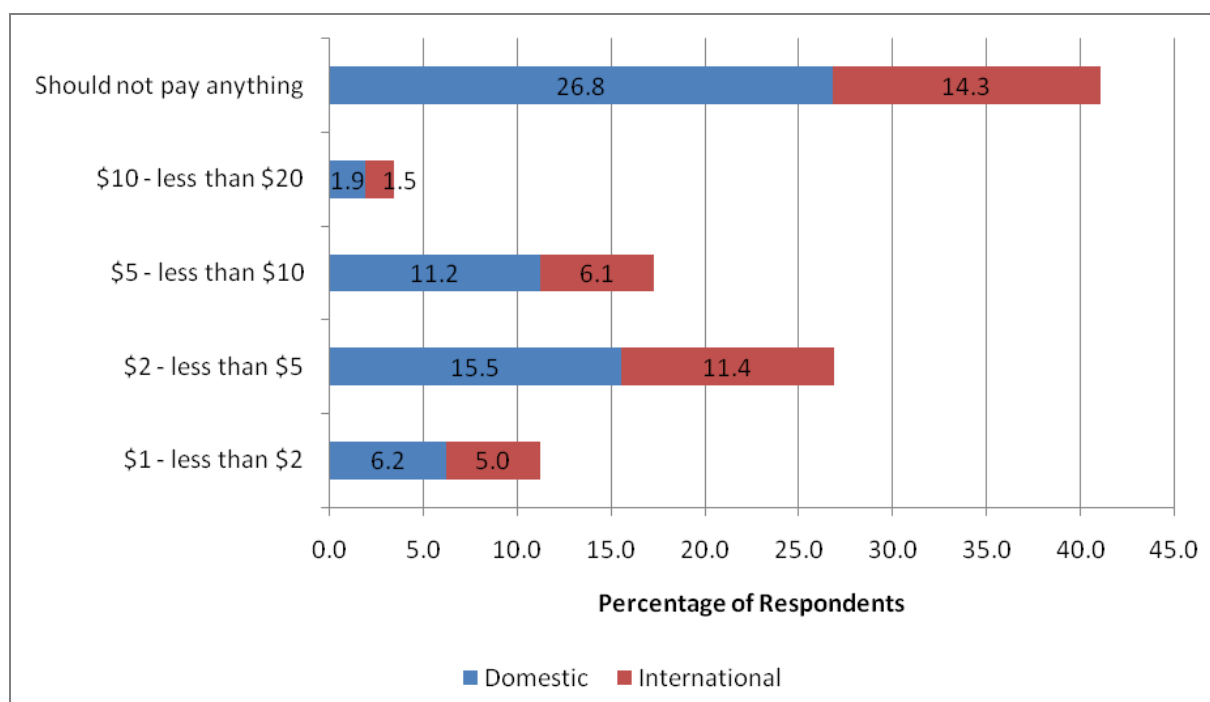


Figure 10: Survey respondents' willingness to pay an access/entrance fee to visit the site at which they were surveyed (n=1,645).

3.2 Perceptions of the Natural Environment

A series of statements were used to gather respondents' views on the natural environment at the site at which they were surveyed. Respondents were asked to indicate their views using a Likert scale where 1 = 'strongly disagree' and 6 = 'strongly agree'. Table 10 summarises respondents' perceptions.

At all of the visitor sites, the natural environment was considered interesting (mean=5.38), in good condition (5.32), appealing in terms of the scenic beauty (5.32) and well-managed (5.23). There were slightly lower levels of agreement in terms of wanting to spend more time at the site (mean=4.80). The perception that the environment was not considered disturbed or impacted (mean=2.50) supports the positive perceptions held for the state of the natural environment and the standards of management.

The desire to spend more time exploring the site was strongest at Paluma (mean=5.10), Mamu Rainforest Canopy Walkway (5.07) and Henrietta Creek (5.02). The lowest level of agreement was received at Lake Tinaroo (4.38). Concerns for the impact of human activity on a site were highest at Dubuji (mean=4.20), Kulki (4.18), Mossman Gorge (4.09) and Emmagen Creek (4.08). These levels of concern may be a result of the higher levels of visitation experienced at Mossman Gorge, Dubuji and Kulki; and the undeveloped state of Emmagen Creek. Levels of concern for a site being disturbed and impacted were strongest at Dubuji (mean=2.72) and Kulki (2.70).

The highest levels of agreement with the natural environment being interesting at the site were recorded at Barron Falls (mean=5.68), Mamu Rainforest Canopy Walkway (5.59) and Wallaman Falls (5.57). The lowest level of agreement was received for Lake Tinaroo (mean=4.90). The appeal of natural attractiveness and scenic beauty was strongest at Mamu Rainforest Canopy Walkway (mean=5.57), Wallaman Falls (5.48) and Emmagen Creek (5.44)

Table 10: Visitors' perceptions of the natural environment at the ten survey sites (mean).

Statement	n	Overall Mean	Survey site									
			Emmagen Creek	Kulki	Dubuji	Mossman Gorge	Barron Falls	Lake Tinaroo	Mamu Rainforest Canopy Walk	Henrietta Creek	Wallaman Falls	Paluma
The natural environment at this site is interesting.	1,834	5.38	5.44	5.35	5.41	5.45	5.68	4.90	5.59	5.30	5.57	5.35
The condition of the natural environment at this site appears to be good.	1,828	5.32	5.36	5.29	5.20	5.41	5.41	5.12	5.43	5.12	5.44	5.27
In terms of natural attractions and scenic beauty this site is appealing.	1,818	5.32	5.44	5.27	5.14	5.34	5.35	5.26	5.57	5.18	5.48	5.26
The natural environment at this site is well managed.	1,822	5.23	4.97	5.15	5.71	5.25	5.39	4.95	5.57	5.07	5.26	5.17
I would like to spend more time exploring this natural environment.	1,822	4.85	4.89	4.86	4.80	4.95	4.84	4.38	5.07	5.02	4.83	5.10
I am concerned about the impacts of human activity on the natural environment at this site.	1,819	3.84	4.08	4.18	4.20	4.09	3.91	3.14	3.52	3.61	3.79	3.92
This site appears to be disturbed and impacted.	1,807	2.50	2.54	2.70	2.72	2.64	2.49	2.26	2.40	2.43	2.29	2.52

Levels of agreement/disagreement with statements about the natural features of each visitor site measured as a percentage are summarised in Table 11.

Across the ten survey sites, more than half of all respondents strongly agreed that the natural environment is interesting (55.4%). Strong levels of agreement were also evident with the natural attractions and scenic beauty of the sites being considered appealing (52.6%) and in good condition (49.7%).

The highest levels of disagreement were associated with a site being considered disturbed or impacted (59.2%).

Table 11: Survey respondents' perceptions of the natural features at the survey sites.

Perceptions of the natural environment at the ten survey sites	Percentage of survey respondents					
	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The natural environment at this site is interesting.	0.4	0.5	1.8	11.0	30.9	55.4
The natural environment at this site is well managed.	0.5	1.3	3.3	11.7	36.3	46.9
The condition of the natural environment at this site appears to be good.	0.3	0.9	2.1	9.7	37.3	49.7
In terms of natural attractions and scenic beauty this site is appealing.	0.3	1.0	2.1	11.9	32.1	52.6
I would like to spend more time exploring this natural environment.	1.1	2.3	5.7	25.6	32.0	33.4
I am concerned about the impacts of human activity on the natural environment at this site.	10.4	13.9	15.2	21.6	20.1	18.8
This site appears to be disturbed and impacted.	29.4	29.8	16.2	13.5	8.0	3.0

3.3 Perceptions and Use of the Site Facilities

Respondents were asked to rate statements regarding site facilities using a Likert scale of 1 (being 'strongly disagree') to 6 (being 'strongly agree'). Table 12 provides the mean results. Strongest agreement was recorded with the facilities being in a good condition overall (mean=4.97) and well managed (4.91). Following these were the perceptions of the facilities being appealing in terms of character and attractiveness (mean=4.81) and adequate (4.77). The highest levels of agreement with all perceptions of the site facilities were recorded at the Mamu Rainforest Canopy Walkway. The strongest levels of agreement with the site facilities appearing to be in good condition overall were found at Mamu Rainforest Canopy Walkway (5.62), Wallaman Falls (5.19), Henrietta Creek (5.09) and Dubuji (5.08).

The importance of a ranger presence was moderate across the entire sample (mean=4.02). However, this perception was strongest at the Mamu Rainforest Canopy Walkway (4.99), Lake Tinaroo (4.64), Kulki (4.10) and Paluma (4.02). The presence of a ranger at Emmagen Creek was not highly supported (mean=2.97). A ranger presence for the purpose of providing education and information was considered most significant at McLelland's Lookout in Paluma ($p < .05$). To give directions was of statistical significance at Kulki in Cape Tribulation and Fong-on-Bay at Lake Tinaroo.

Table 12: Visitors’ perceptions of the survey site facilities as mean ratings.

Statement	n	Overall Mean	Survey site									
			Emmagen Creek	Kulki	Dubuji	Mossman Gorge	Barron Falls	Lake Tinaroo	Mamu Rainforest Canopy Walk	Henrietta Creek	Wallaman Falls	Paluma
The overall condition of the facilities at this site appears to be good.	1,773	4.97	4.06	4.84	5.08	4.75	4.93	4.85	5.62	5.09	5.19	4.96
The facilities and infrastructure at this site are well managed.	1,771	4.91	3.67	4.76	5.08	4.66	4.91	4.78	5.54	5.09	5.35	4.84
This site is appealing in terms of the character and attractiveness of the facilities.	1,769	4.81	4.03	4.56	4.81	4.70	4.75	4.88	5.45	4.79	5.26	4.71
The facilities at this site are adequate.	1,782	4.77	3.68	4.66	5.06	4.62	4.60	4.43	5.49	4.88	5.28	4.87
The presence of a ranger at sites like this is important to me.	1,777	4.02	2.97	4.10	3.88	3.96	3.61	4.64	4.99	3.22	3.73	4.02

The percentages for agreement/disagreement with each statement are shown in Table 13. The majority of respondents (90.5%) agreed that facilities and infrastructure at the sites were well managed. In terms of character and attractiveness of the site facilities, 89% of respondents indicated agreement.

Table 13: Survey respondents' levels of agreement with given statements about site facilities at survey sites.

Perceptions of the site facilities at the ten survey sites	Percentage of survey respondents					
	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The overall condition of the facilities at this site appears to be good.	0.7	1.8	4.9	20.4	36.5	35.6
The facilities and infrastructure at this site are well managed.	1.5	2.0	6.0	19.7	36.6	34.2
This site is appealing in terms of the character and attractiveness of the facilities.	1.8	2.4	6.6	24.3	32.4	32.5
The facilities at this site are adequate.	1.7	2.9	7.4	23.3	34.2	30.5
The presence of a ranger at sites like this is important to me.	9.6	10.3	14.2	22.8	20.3	22.8

Presence of a Ranger On-site

Survey respondents were asked to consider the need for an on-site ranger. Figure 11 illustrates that respondents agreed that the presence of a ranger was needed to provide information and education (49.8%), answer questions (41.2%), for safety and security (40.0%) and for site maintenance (39.8%). Lodging complaints about others' behaviour (13.8%) and guided walks (14.8%) were the least supported reasons.

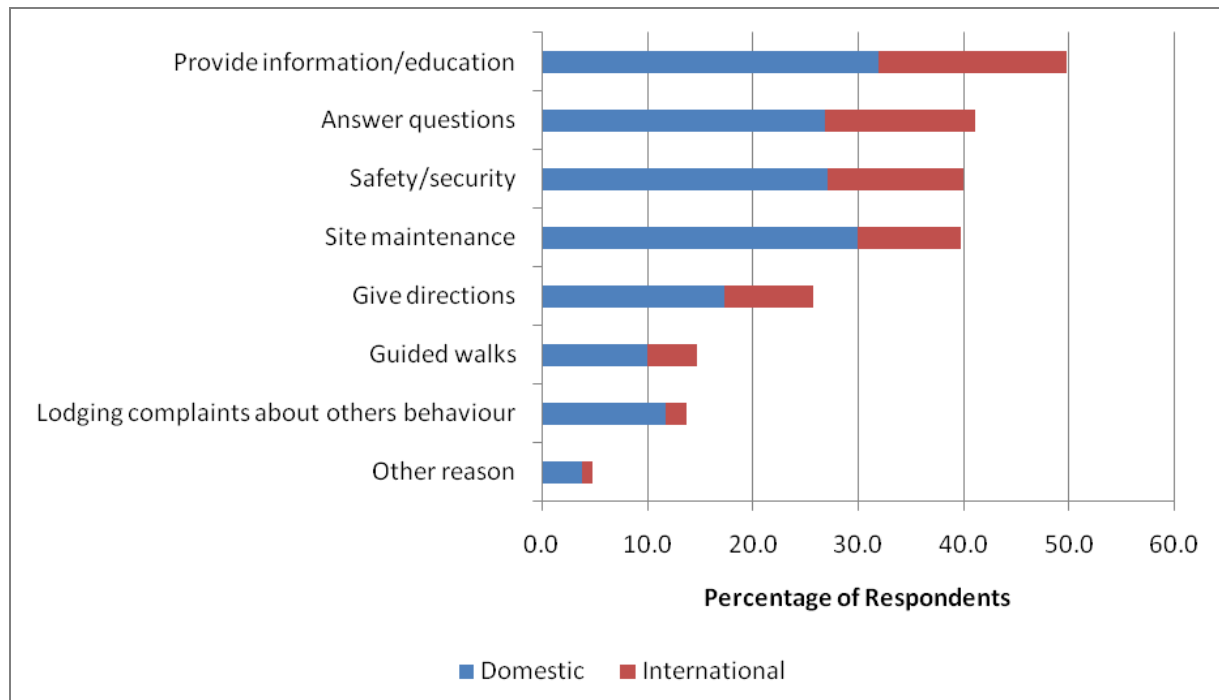


Figure 11: Survey respondents' suggested uses of an on-site Park Ranger at each of the survey sites in response to a multiple-response survey question (n=1,805).

Use of Site Facilities

A multiple-response format was used to ensure respondents had the opportunity to indicate the facilities they had used at the visitor site. Walking tracks proved most popular (74.6%), followed by viewing platforms/boardwalks (62.9%), boardwalks (58.0%) and toilet/shower facilities (54.3%) (Figure 12). There were some noticeable differences between responses from domestic and international respondents, with domestic respondents more likely to use a fireplace and water tap, while international respondents were more likely to use viewing platforms and lookouts.

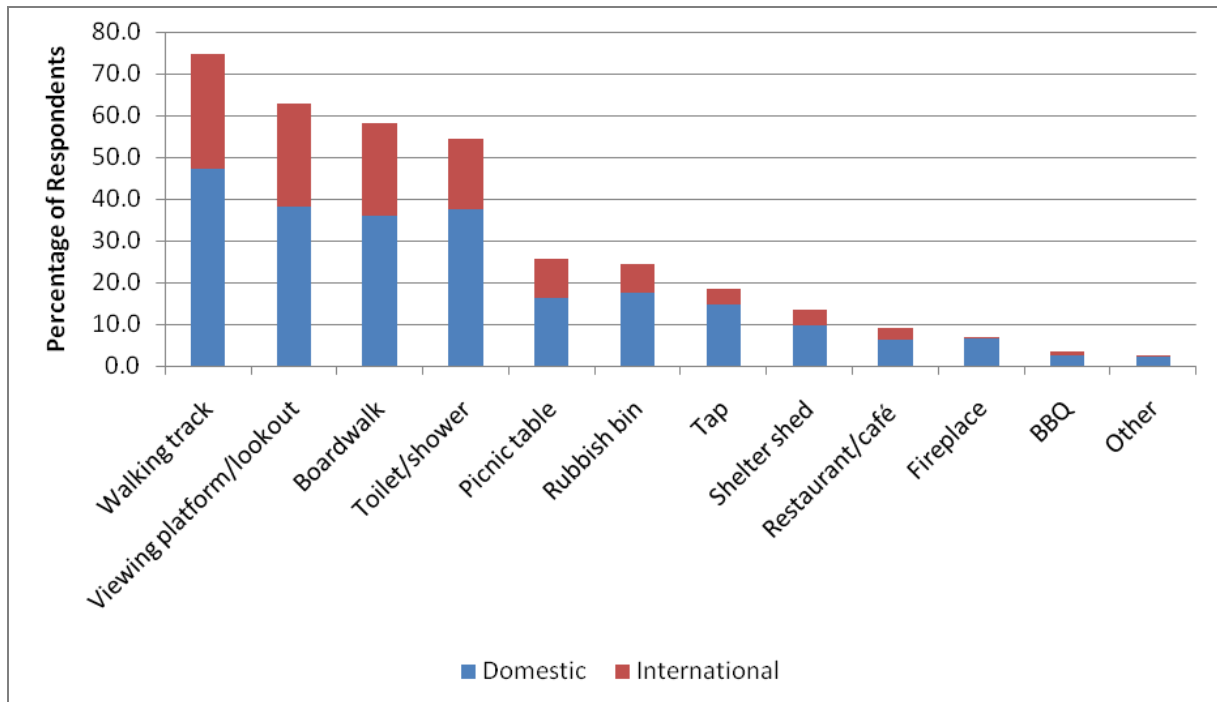


Figure 12: Most popular site facilities used by survey respondents, cited in response to a multiple-response survey question (n=1,872).

Expected Site Facilities

Respondents were asked to indicate if there were facilities that they would have liked to have seen at the survey site. Just under one fifth of all respondents (19.3%, n=338) responded to this survey question, most commonly suggesting that rubbish bins, toilets and showers were expected site facilities. Refer to individual site reports for site specific expectations (Carmody and Prideaux, 2011a-j).

Information about the Visitor Sites

Survey respondents were asked to indicate the sources they had used to gain information about the visitor site prior to their visit. Figure 13 indicates the main information sources used were word-of-mouth (34.4%), knowledge gained during a previous visit (26.5%), a travel guide or book (21.3%), road signage (20.7%) and a map (20.3%). Least used were tourist information centres (3.3%), the internet (5.1%) and tourist brochures (6.7%). International respondents were more likely to use travel guides or books than domestic respondents. However domestic respondents were more likely to use the internet. More than 80% of respondents (87.4%) indicated that the information they used prior to visiting a site was accurate.

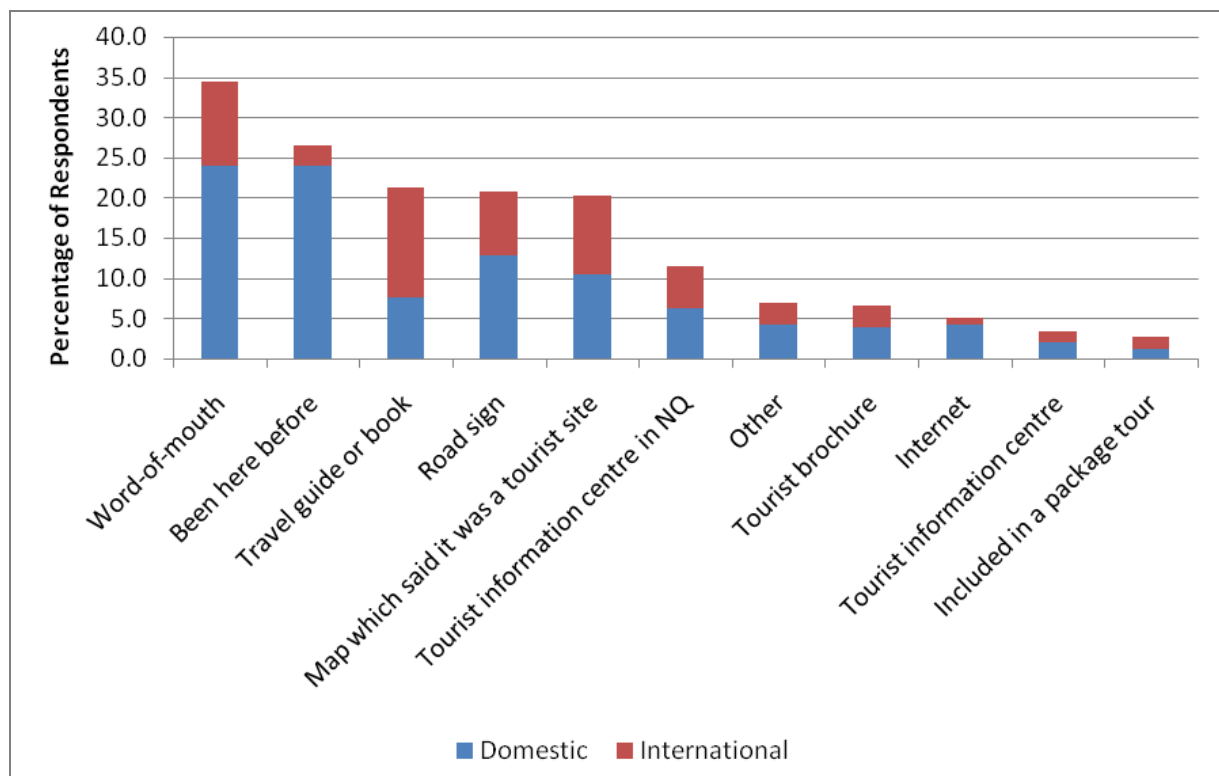


Figure 13: Sources of information consulted by survey respondents prior to visiting visitor sites (n=1,872).

On-site Signage

Interpretative and directional signs are important features of any visitor site's infrastructure. Respondents were asked to rate aspects of the interpretation provided at the site. More than half of all respondents (58.5%, n=978) indicated they had referred to the interpretative information available. Table 14 outlines respondents' levels of agreement with given statements about signage and interpretation provided at the site, based on a Likert scale of 1 (being 'strongly disagree') to 6 (being 'strongly agree').

The Mamu Rainforest Canopy Walkway scored highest on nearly all aspects of the site's signage. Site rules and safety information was considered easiest to understand at Mossman Gorge (mean=5.39), Wallaman Falls (5.37), Dubuji (5.23) and Barron Falls (5.18). The safety information addressed the respondents' interests and concerns best at Mamu Rainforest Canopy Walkway (mean=5.36), Mossman Gorge (5.09) and Wallaman Falls (4.97).

Information about natural features and values was considered the most interesting and informative at the Mamu Rainforest Canopy Walkway (mean=5.49), Barron Falls (5.11), Mossman Gorge (5.04) and Dubuji (4.91). The lowest levels of agreement with this aspect were recorded at Emmagen Creek (mean=3.48) and Lake Tinaroo (4.26).

Aboriginal cultural information was considered most interesting and informative at Mamu Rainforest Canopy Walkway (mean=4.97) and Barron Falls (4.49). This aspect was considered the least informative at Emmagen Creek (mean=2.79) and Lake Tinaroo (2.95).

Table 14: Survey respondents' perceptions of on-site signage at the ten survey sites (mean rating).

Statements relating to on-site signage	n	Overall Mean	Mean rating: 1 ('strongly disagree') to 6 ('strongly agree')									
			Emmagen Creek	Kulki	Dubuji	Mossman Gorge	Barron Falls	Lake Tinaroo	Mamu Rainforest Canopy Walkway	Henrietta Creek	Wallaman Falls	Paluma
Signs, maps and directions:												
Were easy to find	1,746	5.06	4.28	4.75	5.14	5.30	5.09	4.83	5.37	4.62	5.42	4.81
Helped me to find my way around	1,717	4.94	3.77	4.66	5.08	5.21	5.01	4.54	5.36	4.52	5.26	4.60
The rules and safety information:												
Were easy to understand	1,718	5.16	4.32	5.04	5.23	5.39	5.18	4.81	5.52	4.79	5.37	4.87
Addressed my interests and concerns	1,682	4.89	4.10	4.83	4.94	5.09	4.94	4.51	5.36	4.72	4.97	4.56
The information about natural features and values:												
Was interesting and informative	1,697	4.83	3.48	4.56	4.91	5.04	5.11	4.26	5.49	4.36	4.82	4.71
Helped me to better appreciate the special natural features of the area	1,686	4.77	3.31	4.51	4.84	5.03	5.05	4.19	5.42	4.24	4.67	4.68
The Aboriginal cultural information:												
Was interesting and informative	1,493	3.89	2.79	3.68	3.82	3.96	4.49	2.95	4.97	3.03	3.59	3.43
Helped me to understand the significance of this area for rainforest Aboriginal people	1,507	4.47	2.71	3.61	3.76	3.90	4.45	2.96	4.88	2.81	3.48	3.23

Table 15 gives the percentage of responses for each level of agreement/disagreement to statements about on-site information at all ten survey sites. For individual site responses refer to Carmody and Prideaux (2011a-j).

Table 15: Survey respondents' perceptions of on-site information provided at all ten visitor sites.

Perceptions of on-site information at all ten visitor sites	Percentage of survey respondents					
	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
Signs, maps and directions:						
Were easy to find	1.8	2.5	3.8	14.9	33.5	43.4
Helped me to find my way around	2.3	2.2	5.0	18.2	34.2	38.1
The rules and safety information:						
Were easy to understand	1.1	1.3	2.7	15.5	34.3	45.1
Addressed my interests and concerns	1.4	1.7	5.4	23.5	34.2	33.8
The information about natural features and values:						
Was interesting and informative	1.4	1.9	6.4	24.6	33.8	31.8
Helped me to better appreciate the special natural features of the area	1.8	2.4	8.2	23.6	32.9	31.1
The Aboriginal cultural information:						
Was interesting and informative	10.2	11.8	13.9	25.9	19.9	18.4
Helped me to understand the significance of this area for rainforest Aboriginal people	1.1	1.3	2.7	15.5	34.3	45.1

Additional On-site Information

Respondents were asked to suggest what additional interpretative information they would like to see at the site using an open question format. One-fifth (19.9%; n=347) of all respondents indicated a desire for additional information. Refer to individual site reports for this additional information (Carmody and Prideaux, 2011a-j).

3.4 Visitor Experience

Visitors were asked to comment on aspects of their visit that enhanced or increased their enjoyment of the site. An open-ended question was used and a large and varied number of responses were received. Refer to individual site reports for site specific responses (Carmody and Prideaux, 2011a-j).

Other Visitors

The behaviour of other visitors at a site can affect the level of enjoyment an individual derives from visiting that site. In circumstances where overcrowding occurs the overall level of enjoyment could be expected to fall. However, the link between perceived crowding and satisfaction is weak and is dependent on personal norms, situational variables and site infrastructure (West, 1981; Stankey and McCool, 1984; Kalisch and Klaphake, 2007). A series of statements were presented in the survey and respondents were asked to comment using a Likert scale of 1 (being 'strongly disagree') to 6 (being 'strongly agree').

As detailed in Table 16, the strongest levels of agreement that the behaviour of other people was environmentally responsible were recorded at Wallaman Falls (mean=4.21), Henrietta Creek (4.21), Mossman Gorge (4.17), Kulki (4.09) and Paluma (4.06). The perception that there were too many people at the site was strongest at Mossman Gorge (mean=3.01) and Kulki (2.58). When considering the 1-6 scaled rating, these are not high levels of agreement that crowding is an issue. The presence of other people at the site preventing a respondent from doing what they wanted was rated highest at Mossman Gorge (mean=2.32) and Lake Tinaroo (2.06). Finally, the behaviour of some visitors detracting from the respondent's visitor experience was rated highest at Lake Tinaroo (mean=2.69) and Mossman Gorge (2.13).

Table 16: Visitors' perceptions of other site visitors (mean rating).

Statements relating to other visitors	n	Overall Mean	Mean rating: 1 ('strongly disagree') to 6 ('strongly agree')									
			Emmagen Creek	Kulki	Dubuji	Mossman Gorge	Barron Falls	Lake Tinaroo	Mamu Rainorest Canopy Walkway	Henrietta Creek	Wallaman Falls	Paluma
The behaviour of other visitors at this site has been on the whole environmentally responsible.	1,754	3.96	3.66	4.09	3.76	4.17	3.92	3.93	3.43	4.21	4.21	4.06
There were too many people at this site today.	1,770	2.24	1.69	2.58	1.97	3.01	2.05	2.33	1.67	1.79	2.05	1.89
The presence of other people at this site prevented me from doing what I wanted to.	1,765	1.91	1.61	1.88	1.85	2.32	1.84	2.06	1.53	1.72	1.66	1.78
The behaviour of some visitors at this site detracted from my enjoyment of this site.	1,750	1.90	1.67	1.86	1.71	2.13	1.77	2.69	1.47	1.72	1.60	1.77

Table 17 provides respondents' levels of agreement/disagreement with statements relating to perceptions of other visitors at the site using the 1-6 Likert scale. Results indicate disagreement with issues of overcrowding whereby 81.4% of respondents did not think there were too many people at a site or that the presence of others prevented them from doing what they wanted during their visit (88.6%). The behaviour of other visitors at a site was considered, on the whole, environmentally responsible (65.5%) and did not detract from personal enjoyment of a site (87%).

Table 17: Respondents' perceptions of other visitors at the ten survey sites.

Perceptions of other site visitors at the ten survey sites	Percentage of survey respondents					
	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The behaviour of other visitors at this site has been on the whole environmentally responsible.	19.6	8.7	6.3	12.6	27.5	25.4
There were too many people at this site today.	42.3	23.7	15.4	9.1	5.0	4.5
The presence of other people at this site prevented me from doing what I wanted to.	53.5	23.1	12.0	5.7	2.8	3.0
The behaviour of some visitors at this site detracted from my enjoyment of this site.	54.9	23.2	8.9	5.9	3.8	3.3

Additional Comments

The survey instrument provided respondents with the opportunity to record comments on any aspect of their visit to a site. A number of responses were received (14.2%, n=261) and can be viewed in each of the site reports (Carmody and Prideaux, 2011a-j).

4. Management Considerations

The collective findings of the visitor survey suggest management consideration is given to the following matters:

- A site's World Heritage status was not a major drawcard for visiting many of the survey sites. Similar findings by King and Prideaux (2010) indicate that there is scope to enhance promotion of World Heritage Area status.
- Site crowding was not evident in survey responses, suggesting visitor flows at day use sites and carrying capacities at overnight sites are currently successful.
- Visitors would like to see rangers employed at some sites, particularly those with higher levels of visitation. However, this is not a recommendation for a ranger to be stationed at a site permanently.
- The attractions and scenic beauty of the natural environment were the main motivations for visiting rainforest sites by both domestic and international visitors.
- Facilities and infrastructure at sites were considered adequate or better. Regular maintenance of site facilities is important to visitors.
- The expectation of rubbish bins at sites is high. Although signage is provided asking visitors to take their rubbish with them, a brief explanation as to why rubbish bins are not provided at sites may assist uninformed visitors to understand the reasons why they are not provided, such as wildlife protection.
- As word of mouth is one of the most popular sources of prior information about any particular visitor site, management agencies should become aware of the impact of social marketing websites.

5. References

Altinay, L. and Paraskevas, A. (2008) *Planning Research in Hospitality and Tourism*. Oxford: Butterworth-Heinemann.

Bentrupperbäumer, J. (2002a) *Barron Falls: Site Level Data Report 2001/2002*. Cairns: Cooperative Research Centre for Tropical Rainforest Ecology and Management (Rainforest CRC) (<http://www.wettropics.gov.au/res/downloads/BarronFalls.pdf>).

Bentrupperbäumer, J. (2002b) *Mossman Gorge: Site Level Data Report 2001/2002*. Cairns: Cooperative Research Centre for Tropical Rainforest Ecology and Management (Rainforest CRC) (<http://www.wettropics.gov.au/res/downloads/MossmanGorge.pdf>).

Bentrupperbäumer, J. (2002c) *Henrietta Creek: Site Level Data Report 2001/2002*. Cairns: Cooperative Research Centre for Tropical Rainforest Ecology and Management (Rainforest CRC) (<http://www.wettropics.gov.au/res/downloads/HenriettaCreek.pdf>).

Budeanu, A. (2007) Sustainable Tourism Behaviour – a Discussion of Opportunities for Change. *International Journal of Consumer Studies* 31: 499-508.

Carmody, J. and Prideaux, B. (2008) *Community attitudes, knowledge, perceptions and use of the Wet Tropics of Queensland World Heritage Area in 2007*. Report to the Marine and Tropical Sciences Research Facility. Cairns: Published by the Reef and Rainforest Research Centre (http://www.rrrc.org.au/publications/community_attitudes.html).

Carmody, J. and Prideaux, B. (2011a-j) Site Reports:
http://www.rrrc.org.au/publications/tourism_sitereports.html

Carmody, J. and Prideaux, B. (2011a) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Emmagen Creek, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (56pp.).

Carmody, J. and Prideaux, B. (2011b) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Kulki, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (61pp.).

Carmody, J. and Prideaux, B. (2011c) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Dubuji, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (63pp.).

Carmody, J. and Prideaux, B. (2011d) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Mossman Gorge, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (65pp.).

Carmody, J. and Prideaux, B. (2011e) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Barron Falls, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (57pp.).

Carmody, J. and Prideaux, B. (2011f) *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Lake Tinaroo, Far North Queensland, 2009/2010*. Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (86pp.).

- Carmody, J. and Prideaux, B. (2011g)** *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Henrietta Creek, Far North Queensland, 2009/2010.* Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (58pp.)
- Carmody, J. and Prideaux, B. (2011h)** *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Mamu Rainforest Canopy Walkway, Far North Queensland, 2009/2010.* Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (63pp.)
- Carmody, J. and Prideaux, B. (2011i)** *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Wallaman Falls, Far North Queensland, 2009/2010.* Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (61pp.)
- Carmody, J. and Prideaux, B. (2011j)** *Sustainable Nature Based Tourism: Planning and Management. Report on Visitation and Use at Paluma, Far North Queensland, 2009/2010.* Report to the Marine and Tropical Sciences Research Facility. Published by the Reef and Rainforest Research Centre Limited, Cairns (57pp.)
- Kalisch, D. and Klaphake, A. (2007)** Visitors' satisfaction and perception of crowding in a German National Park: A case study on the island of Hallig Hooge. *Forest Snow and Landscape Research* 81(1-2): 109-122.
- King, L. M. and Prideaux, B. (2010)** Special interest tourists collecting places and destinations: A case study of Australian World Heritage sites. *Journal of Vacation Marketing* 16(3): 235-247.
- Manidis Roberts Consultants (1994)** *Data summary: 1993 Visitor use survey Wet Tropics World Heritage Area.* Report to the Wet Tropics Management Authority.
- Martin, S. (ed.) (2008)** *Bush Telegraph.* Winter, 2008. Cairns: Environmental Protection Agency.
- Stankey, G.H. and McCool, S.F. (1984)** Carrying capacity in recreational settings: Evaluation, appraisal and application. *Leisure Sciences* 6(4): 453-473.
- West, A. (1981)** Recreational carrying capacity. In: J. Pigram (1983) *Outdoor recreation and resource management.* London: Croom Helm Ltd.
- Whitmarsh, L. (2009)** What's in a name? Commonalities and differences in public understanding of 'climate change' and 'global warming'. *Public Understanding of Science* 18: 401-420.
- WTMA (2008)** *Wet Tropics Management Authority Strategic Plan, 2008-2013.* Cairns: Wet Tropics Management Authority (WTMA).

Appendix 1: Site Survey Instrument

Note, a separate survey instrument was used at Mamu Rainforest Canopy Walkway – see Appendix 2.



Visitor Site Survey in the Wet Tropics World Heritage Area

Interviewer:

Survey Location:

Survey Date: **Time:**

Weather: Sunny Overcast Raining Hot Warm Cool

Other Comments: (e.g. windy, smoky, mist)

.....

Dear Visitor,

We are researchers from James Cook University, School of Business – Tourism, and on behalf of the Wet Tropics Management Authority we are exploring visitors’ expectations and experiences of this Wet Tropics site. We would be very grateful if you would participate in the study by completing this questionnaire.

Your participation will help to improve visitor services and the continued management of sites by understanding visitors’ needs and views.

The questionnaire is **voluntary** and all **responses remain completely anonymous**.

The questionnaire will take approximately **15 minutes** to complete.

Thank you very much for your participation.

If you would like any more information about this project please contact the project manager. If you would like to discuss any ethical matters regarding this project please contact the Ethics Administrator. This project has Human Ethics approval H3100 from James Cook University.

**PLEASE DETACH AND RETAIN THIS INFORMATION
PAGE ONLY FOR YOUR FUTURE REFERENCE**

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9. In your travels today, where did you **previously visit** before coming to this site?
(e.g. township, visitor site)

.....

10. In your travels today, where do you plan to go **after leaving this site**?

.....

11. How often do you **visit natural areas** like this (e.g. National Parks)?

- This is my first time
- Less than once a year
- Once a year
- Between 2 and 5 times a year
- More than 5 times a year

SECTION C: REASONS FOR VISITING

12. Please indicate how important the following **reasons** were for you **visiting this site** today.

	Not important	Slightly important	Moderately important	Important	Quite important	Very important
See natural features and scenery	1	2	3	4	5	6
Be close to / experience nature	1	2	3	4	5	6
Social with family or friends	1	2	3	4	5	6
Rest and relax	1	2	3	4	5	6
Experience tranquility	1	2	3	4	5	6
Outdoor exercise	1	2	3	4	5	6
Opportunities for short walks	1	2	3	4	5	6
Opportunities for long walks	1	2	3	4	5	6
Because it is a World Heritage Area	1	2	3	4	5	6
Because it is a National Park	1	2	3	4	5	6
Learn about native animals and plants	1	2	3	4	5	6
Learn about Aboriginal culture	1	2	3	4	5	6
Other (please specify)	1	2	3	4	5	6

13. What **activities** did you engage in at this site today?

- | | |
|---|---|
| <input type="checkbox"/> Observing scenery | <input type="checkbox"/> Walking – short (1 hour or less) |
| <input type="checkbox"/> Bird watching | <input type="checkbox"/> Walking – long (1-6 hours) |
| <input type="checkbox"/> Observe wildlife | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Photography / painting / drawing | <input type="checkbox"/> Guided tour |
| <input type="checkbox"/> Picnic / barbeque (BBQ) | <input type="checkbox"/> Looking at interpretation material |
| <input type="checkbox"/> Using café / restaurant | <input type="checkbox"/> Relaxing |
| <input type="checkbox"/> Camping | <input type="checkbox"/> Other (please specify): |

.....
.....

14. Were there particular things you wanted to do today at this site which you were unable to do?

- Yes
- No

If you answered 'Yes', please specify:

.....
.....

15. How **long** have you spent at this site today?

- | | |
|--|--|
| <input type="checkbox"/> Less than half an hour | <input type="checkbox"/> About 3 hours |
| <input type="checkbox"/> About half an hour | <input type="checkbox"/> About 4 hours |
| <input type="checkbox"/> About 1 hour | <input type="checkbox"/> More than 4 hours |
| <input type="checkbox"/> About 2 hours | <input type="checkbox"/> Overnight |
| <input type="checkbox"/> Days (please specify) | |

16. If an **entrance fee** were introduced to access this site today, how much would you be willing to pay?

- \$1 – less than \$2 (AUD)
- \$2 – less than \$5 (AUD)
- \$5 – less than \$10 (AUD)
- \$10 – less than \$20 (AUD)
- I do not think I should pay anything to access this site as a day visitor.

SECTION D: NATURAL ENVIRONMENT

17. The following statements are about the **natural features** of this site. Please rate the extent to which you agree or disagree with each statement.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The natural environment at this site is interesting.	1	2	3	4	5	6
I would like to spend more time exploring this natural environment.	1	2	3	4	5	6
In terms of natural attractions and scenic beauty this site is appealing.	1	2	3	4	5	6
The condition of the natural environment at this site appears to be good.	1	2	3	4	5	6
The natural environment at this site is well managed.	1	2	3	4	5	6
I am concerned about the impacts of human activity on the natural environment at this site.	1	2	3	4	5	6
This site appears to be disturbed and impacted.	1	2	3	4	5	6

SECTION E: SITE FACILITIES

18. What facilities have you used at this site today? (Tick as many as applicable)

Picnic table

Walking track

Shelter shed

Boardwalk

Restaurant / café

Viewing platform / lookout

Rubbish bin

Fire place

Toilet / showers

Barbeque

Tap

Other (please specify)

.....

19. Were there particular **facilities at this site you were expecting** to find which were not available?

- Yes
- No

If you answered 'Yes', please specify:

.....

20. Please rate the extent to which you agree or disagree with each of the following statements about the **facilities and management** at this site.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The site is appealing in terms of the character and attractiveness of the facilities.	1	2	3	4	5	6
The facilities at this site are adequate.	1	2	3	4	5	6
The overall condition of the facilities at this site appears to be good.	1	2	3	4	5	6
The facilities and infrastructure at this site are well managed.	1	2	3	4	5	6
The presence of a ranger at sites like this is important to me.	1	2	3	4	5	6

21. If you **agreed the presence of a ranger was important**, what are the reasons for this?

- To provide information / education
- To answer questions
- To take us on guided walks
- For safety / security
- Other (please specify)
- To give directions
- For lodging complaints about others' behavior
- For site maintenance

.....

SECTION F: INFORMATION

22. How did you **find out about this site?**

- | | |
|---|---|
| <input type="checkbox"/> Have been here before | <input type="checkbox"/> Travel guide or book |
| <input type="checkbox"/> Road sign | <input type="checkbox"/> From the web |
| <input type="checkbox"/> Word of mouth | <input type="checkbox"/> The trip here was included in a package tour |
| <input type="checkbox"/> Map which said it was a tourist site | <input type="checkbox"/> Tourist brochure (which one?) |
| | |
| <input type="checkbox"/> Tourist information centre in North Queensland | <input type="checkbox"/> Tourist information centre (other) |
| | |
| <input type="checkbox"/> Other (please specify): | |

23. If you obtained **prior information** about this site, was the information accurate?

- Yes
 No

If you answered 'No', please specify:

.....

24. Did you refer to any of the information available at this site today? Yes
 No

25. Please rate the extent to which you agree or disagree with the following statements about **information available** at this site.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
Signs, maps and directions...						
were easy to find	1	2	3	4	5	6
helped me to find my way around	1	2	3	4	5	6
The rules and safety information...						
were easy to understand	1	2	3	4	5	6
addressed my interests and concerns	1	2	3	4	5	6
The information about natural features and values...						
was interesting and informative	1	2	3	4	5	6
helped me to better appreciate the special natural values of the area	1	2	3	4	5	6
The Aboriginal cultural information...						
was interesting and informative	1	2	3	4	5	6
helped me to understand the significance of this area for Rainforest Aboriginal people	1	2	3	4	5	6

26. If you were to visit this site again, is there any **additional information** you would like?

Yes

No

If you answered 'Yes', please specify:

.....

SECTION G: VISITOR EXPERIENCE

27. Were there any particular aspects of your visit that **increased / enhanced your enjoyment** of this site?

Yes

No

If you answered 'Yes', please specify:

.....

28. Were there any particular aspects of your visit that **took away / detracted from your enjoyment** of this site?

Yes

No

If you answered 'Yes', please specify:

.....

29. Please rate how strongly you agree or disagree with the following statements about **other visitors at this site** today.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
There were too many people at this site today.	1	2	3	4	5	6
The presence of other people at this site prevented me from doing what I wanted to do.	1	2	3	4	5	6
The behavior of other visitors at this site has been on the whole environmentally responsible.	1	2	3	4	5	6
The behavior of some visitors at this site detracted from my enjoyment of this site.	1	2	3	4	5	6

ADDITIONAL COMMENTS:

.....

.....

.....

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THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Appendix 2: Site Survey Instrument (Mamu Rainforest Canopy Walkway)



Visitor Site Survey in the Wet Tropics World Heritage Area

Interviewer:

Survey Location:

Survey Date: Time:

Weather: Sunny Overcast Raining Hot Warm Cool

Other Comments: (e.g. windy, smoky, mist)

.....

Dear Visitor,

We are researchers from James Cook University, School of Business – Tourism, and on behalf of the Wet Tropics Management Authority we are exploring visitors' expectations and experiences of this Wet Tropics site. We would be very grateful if you would participate in the study by completing this questionnaire.

Your participation will help to improve visitor services and the continued management of sites by understanding visitors' needs and views.

The questionnaire is **voluntary** and all **responses remain completely anonymous**.

The questionnaire will take approximately **15 minutes** to complete.

Thank you very much for your participation.

If you would like any more information about this project please contact the project manager. If you would like to discuss any ethical matters regarding this project please contact the Ethics Administrator. This project has Human Ethics approval H3100 from James Cook University.

**PLEASE DETACH AND RETAIN THIS INFORMATION
PAGE ONLY FOR YOUR FUTURE REFERENCE**

Project Manager:

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HOW TO COMPLETE THIS QUESTIONNAIRE – Where questions require a ‘Yes’ or ‘No’ answer, or multiple response, please put a tick ‘✓’ in the checkbox beside the appropriate response.

Where a scale question is provided (e.g. scale from 1 to 6) please circle the response which best applies.

SECTION A: BACKGROUND INFORMATION

1. **Where do you normally live?** Within Australia Postcode:
- Overseas Country:

2. **How long have you lived there?** Years

3. Which of these best describes your **occupation**?

<input type="checkbox"/> Self-employed	<input type="checkbox"/> Professional	<input type="checkbox"/> Retail	<input type="checkbox"/> Domestic duties
<input type="checkbox"/> Management	<input type="checkbox"/> Office/clerical	<input type="checkbox"/> Public service	<input type="checkbox"/> Manual/factory work
<input type="checkbox"/> Service industry	<input type="checkbox"/> Tradesperson	<input type="checkbox"/> Student	<input type="checkbox"/> Retired/semi-retired
<input type="checkbox"/> Other			

4. What is the highest level of **formal education** you have completed so far?

<input type="checkbox"/> Primary	(1-7 years of education)
<input type="checkbox"/> Secondary	(8-12 years of education)
<input type="checkbox"/> Tertiary A	(Technical or further education institution)
<input type="checkbox"/> Tertiary B	(University)

5. **What is your age?** years

6. **Gender:** Male Female

SECTION B: TRANSPORT AND TRAVEL

7. Are you with an **organised tour**? Yes
- No (*Go to Question 8*)

- If you answered ‘Yes’, what is the name of the tour company?
-

- Approx. number of people on your tour:

8. If you travelled in a **private or hired vehicle**, how many people including yourself are in your vehicle?
- Adults Children Private vehicle Hired vehicle

9. In your travels today, where did you **previously visit** before coming to this site?
(e.g. township, visitor site)

.....

10. In your travels today, where do you plan to go **after leaving this site**?

.....

11. Have you visited **any other canopy walk attractions** similar to the Mamu Rainforest Canopy Walkway before?

- Yes
 No

If you answered 'Yes', which attraction/s did you visit?

.....

12. How would you compare Mamu Rainforest Canopy Walkway with other canopy walks you have visited?

- Mamu Rainforest Canopy Walkway is not as good.
 Mamu Rainforest Canopy Walkway is about the same.
 Mamu Rainforest Canopy Walkway is better.

SECTION C: REASONS FOR VISITING

13. Please indicate how important the following **reasons** were for you **visiting this site** today.

	Not important	Slightly important	Moderately important	Important	Quite important	Very important
See natural features and scenery	1	2	3	4	5	6
Be close to / experience nature	1	2	3	4	5	6
Social with family or friends	1	2	3	4	5	6
Rest and relax	1	2	3	4	5	6
Experience tranquility	1	2	3	4	5	6
Outdoor exercise	1	2	3	4	5	6
Opportunities for short walks	1	2	3	4	5	6
Opportunities for long walks	1	2	3	4	5	6
Because it is a World Heritage Area	1	2	3	4	5	6
Because it is a National Park	1	2	3	4	5	6
Learn about native animals and plants	1	2	3	4	5	6
Learn about Aboriginal culture	1	2	3	4	5	6
Other (please specify)	1	2	3	4	5	6

14. What **activities** did you engage in at this site today?

- | | |
|---|---|
| <input type="checkbox"/> Observing scenery | <input type="checkbox"/> Walking – short (1 hour or less) |
| <input type="checkbox"/> Bird watching | <input type="checkbox"/> Walking – long (1-6 hours) |
| <input type="checkbox"/> Observe wildlife | <input type="checkbox"/> Swimming |
| <input type="checkbox"/> Photography / painting / drawing | <input type="checkbox"/> Guided tour |
| <input type="checkbox"/> Picnic / barbeque (BBQ) | <input type="checkbox"/> Looking at interpretation material |
| <input type="checkbox"/> Using café / restaurant | <input type="checkbox"/> Relaxing |
| <input type="checkbox"/> Camping | <input type="checkbox"/> Other (please specify): |

.....
.....

15. Were there particular things you wanted to do today at this site which you were unable to do?

- Yes
 No

If you answered 'Yes', please specify:

.....
.....

16. How **long** have you spent at this site today?

- | | |
|--|--|
| <input type="checkbox"/> Less than half an hour | <input type="checkbox"/> About 3 hours |
| <input type="checkbox"/> About half an hour | <input type="checkbox"/> About 4 hours |
| <input type="checkbox"/> About 1 hour | <input type="checkbox"/> More than 4 hours |
| <input type="checkbox"/> About 2 hours | <input type="checkbox"/> Overnight |
| <input type="checkbox"/> Days (please specify) | |

17. Do you think the **entrance fee** you paid to enter the Mamu Rainforest Canopy Walkway today is reasonable?

- Yes
 No

18. How much would you be **willing to pay** to access the Mamu Rainforest Canopy Walkway?

\$.....per Adult \$.....per Child

SECTION D: NATURAL ENVIRONMENT

19. The following statements are about the **natural features** of this site. Please rate the extent to which you agree or disagree with each statement.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The natural environment at this site is interesting.	1	2	3	4	5	6
I would like to spend more time exploring this natural environment.	1	2	3	4	5	6
In terms of natural attractions and scenic beauty this site is appealing.	1	2	3	4	5	6
The condition of the natural environment at this site appears to be good.	1	2	3	4	5	6
The natural environment at this site is well managed.	1	2	3	4	5	6
I am concerned about the impacts of human activity on the natural environment at this site.	1	2	3	4	5	6
This site appears to be disturbed and impacted.	1	2	3	4	5	6

SECTION E: SITE FACILITIES

20. What facilities have you used at this site today? (Tick as many as applicable)

- | | |
|---|---|
| <input type="checkbox"/> Picnic table | <input type="checkbox"/> Walking track |
| <input type="checkbox"/> Shelter shed | <input type="checkbox"/> Boardwalk |
| <input type="checkbox"/> Restaurant / café | <input type="checkbox"/> Viewing platform / lookout |
| <input type="checkbox"/> Rubbish bin | <input type="checkbox"/> Fire place |
| <input type="checkbox"/> Toilet / showers | <input type="checkbox"/> Barbeque |
| <input type="checkbox"/> Tap | |
| <input type="checkbox"/> Other (please specify) | |
| | |

21. Were there particular **facilities at this site you were expecting** to find which were not available?

Yes

No

If you answered 'Yes', please specify:

.....

22. Please rate the extent to which you agree or disagree with each of the following statements about the **facilities and management** at this site.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
The site is appealing in terms of the character and attractiveness of the facilities.	1	2	3	4	5	6
The facilities at this site are adequate.	1	2	3	4	5	6
The overall condition of the facilities at this site appears to be good.	1	2	3	4	5	6
The facilities and infrastructure at this site are well managed.	1	2	3	4	5	6
The presence of a ranger at sites like this is important to me.	1	2	3	4	5	6

23. If you **agreed the presence of a ranger was important**, what are the reasons for this?

To provide information / education

To give directions

To answer questions

For lodging complaints about others' behavior

To take us on guided walks

For site maintenance

For safety / security

Other (please specify)

.....

SECTION F: INFORMATION

24. How did you **find out about this site**?

- | | |
|---|---|
| <input type="checkbox"/> Have been here before | <input type="checkbox"/> Travel guide or book |
| <input type="checkbox"/> Road sign | <input type="checkbox"/> From the web |
| <input type="checkbox"/> Word of mouth | <input type="checkbox"/> The trip here was included in a package tour |
| <input type="checkbox"/> Map which said it was a tourist site | <input type="checkbox"/> Tourist brochure (which one?) |
| | |
| <input type="checkbox"/> Tourist information centre in North Queensland | <input type="checkbox"/> Tourist information centre (other) |
| | |
| <input type="checkbox"/> Other (please specify): | |

25. If you obtained **prior information** about this site, was the information accurate?

- Yes
 No

If you answered 'No', please specify:

.....

26. Did you refer to any of the information available at this site today? Yes
 No

27. Please rate the extent to which you agree or disagree with the following statements about **information available** at this site.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
Signs, maps and directions...						
were easy to find	1	2	3	4	5	6
helped me to find my way around	1	2	3	4	5	6
The rules and safety information...						
were easy to understand	1	2	3	4	5	6
addressed my interests and concerns	1	2	3	4	5	6
The information about natural features and values...						
was interesting and informative	1	2	3	4	5	6
helped me to better appreciate the special natural values of the area	1	2	3	4	5	6
The Aboriginal cultural information...						
was interesting and informative	1	2	3	4	5	6
helped me to understand the significance of this area for Rainforest Aboriginal people	1	2	3	4	5	6

28. If you were to visit this site again, is there any **additional information** you would like?

Yes

No

If you answered 'Yes', please specify:

.....

.....

SECTION G: VISITOR EXPERIENCE

29. Were there any particular aspects of your visit that **increased / enhanced your enjoyment** of this site?

Yes

No

If you answered 'Yes', please specify:

.....

.....

30. Were there any particular aspects of your visit that **took away / detracted from your enjoyment** of this site?

Yes

No

If you answered 'Yes', please specify:

.....

.....

31. Please rate how strongly you agree or disagree with the following statements about **other visitors at this site** today.

	Strongly disagree	Somewhat disagree	Mildly disagree	Mildly agree	Somewhat agree	Strongly agree
There were too many people at this site today.	1	2	3	4	5	6
The presence of other people at this site prevented me from doing what I wanted to do.	1	2	3	4	5	6
The behavior of other visitors at this site has been on the whole environmentally responsible.	1	2	3	4	5	6
The behavior of some visitors at this site detracted from my enjoyment of this site.	1	2	3	4	5	6

ADDITIONAL COMMENTS:

.....

.....

.....

.....

.....

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.....

THANK YOU VERY MUCH FOR YOUR PARTICIPATION

Appendix 3: Comparative Data for Barron Falls

Table 18 provides comparative data based on the visitor site surveys undertaken at Barron Falls in 2001/2002 by Bentrupperbäumer (2002a) and in 2008/2009 by Carmody and Prideaux (2011e). Only selected results are presented.

Note that Bentrupperbäumer (2002a) had two stages of data collection – 2001 dry season and 2002 wet season. Carmody and Prideaux (2011e) used a convenience sampling and surveying period.

Table 18: Comparative survey results for Barron Falls.

	Data from 2009 survey Published by Carmody and Prideaux (2011e) (N=294)	Data from 2001/2002 survey Published by Bentrupperbäumer (2002a) (N=377)
Origin of respondents	Domestic visitors 56.1% International visitors 43.9%	Domestic visitors 2001 = 69.0% 2002 = 55.6% International visitors 2001 = 31.0% 2002 = 44.4%
Age of respondents	Mean age 39.8 years	Mean age..... 2001 = 33.9 years 2002 = 34.8 years
Education levels	Majority Tertiary B 42.3%	Majority 2001 = Tertiary B 45.5% 2002 = Tertiary B 48.0%
Motivations to visit Likert scale of 1 'not important' to 6 'very important'; mean reported	<ul style="list-style-type: none"> To see natural features and scenery Mean = 5.14 To be close to/experience nature Mean = 4.75 To experience tranquillity Mean = 4.40 	<ul style="list-style-type: none"> To see natural features and scenery 2001 Mean = 5.21 2002 Mean = 5.47 'To experience the Wet Tropics 2001 Mean = 4.24 2002 Mean = 4.84 'To experience tranquillity 2001 Mean = 4.13 2002 Mean = 4.59
Activities	<ul style="list-style-type: none"> Observing scenery (84.9%) Short walk (83.5%) Photography/painting/drawing (68.1%) Relaxing (50.9%) 	<ul style="list-style-type: none"> Observing scenery 2001 = 91.1% 2002 = 92.9% Short walk 2001 = 72.9% 2002 = 81.9% Photography/painting/drawing 2001 = 45.7% 2002 = 45.7%
Time spent at site	<ul style="list-style-type: none"> About ½ hour (34.7%) About 1 hour (46.4%) 	<ul style="list-style-type: none"> About ½ hour 2001 = 44.5% 2002 = 49.2% About 1 hour 2001 = 26.3% 2002 = 32.5%
Prior information about the site	<ul style="list-style-type: none"> Road signage (39.4%) Word of mouth (26.4%) Map (26.4%) Travel guide/book (25.0%) 	<ul style="list-style-type: none"> Previous visit to the site 2001 = 33.9% 2002 = 29.4% Road signage 2001 = 25.8% 2002 = 32.5% Word of mouth 2001 = 22.6% 2002 = 20.6% Map 2001 = 11.3% 2002 = 22.2%

Appendix 4: Comparative Data for Mossman Gorge

Table 19 provides comparative data based on the visitor site surveys undertaken at Mossman Gorge in 2001/2002 by Bentrupperbäumer (2002b) and in 2008/2009 by Carmody and Prideaux (2011d). Only selected results are presented.

Note that Bentrupperbäumer (2002b) had two stages of data collection – 2001 dry season and 2002 wet season. Carmody and Prideaux (2011d) used a convenience sampling and surveying period.

Table 19: Comparative survey results for Mossman Gorge.

	Data from 2009 survey Published by Carmody and Prideaux (2011d) (N=358)	Data from 2001/2002 survey Published by Bentrupperbäumer (2002b) (N=738)
Origin of respondents	Domestic visitors 66.4% International visitors 33.6%	Domestic visitors 2001 = 58.9% 2002 = 56.7% International visitors 2001 = 41.1% 2002 = 43.3%
Age of respondents	Mean age 43.7 years	Mean age..... 2001 = 36.8 years 2002 = 35.3 years
Education levels	Majority Tertiary B 51.5%	Majority 2001 = Tertiary B 49.9% 2002 = Tertiary B 43.9%
Motivations to visit Likert scale of 1 'not important' to 6 'very important'; mean reported	<ul style="list-style-type: none"> • 'To see natural features and scenery' Mean = 5.34 • 'To be close to/experience nature' Mean = 5.06 • 'To experience tranquillity' Mean = 4.61 	<ul style="list-style-type: none"> • 'To see natural features and scenery' 2001 Mean = 5.41 2002 Mean = 5.12 • 'To be close to/experience nature' 2001 Mean = 4.96 2002 Mean = 4.86 • 'To experience the Wet Tropics' 2001 Mean = 4.94 2002 Mean = 4.70
Activities	<ul style="list-style-type: none"> • Observing scenery (87.6%) • Short walk (90.3%) • Photography/painting/drawing (65.9%) • Relaxing (52.4%) 	<ul style="list-style-type: none"> • Observing scenery 2001 = 87.5% 2002 = 85.4% • Short walk 2001 = 71.8% 2002 = 67.9% • Photography/painting/drawing 2001 = 52.0% 2002 = 38.6% • Relaxing 2001 = 40.7% 2002 = 38.6%
Time spent at site	<ul style="list-style-type: none"> • About ½ hour (30.5%) • About 1 hour (49.9%) 	<ul style="list-style-type: none"> • About 1 hour 2001 = 34.6% 2002 = 33.3% • About 2 hours 2001 = 28.2% 2002 = 26.4%
Prior information about the site	<ul style="list-style-type: none"> • Word of mouth (41.8%) • Travel guide/book (28.5%) • Knowledge from a previous visit (27.3%) 	<ul style="list-style-type: none"> • Previous visit to the site 2001 = 20.8% 2002 = 28.6% • Travel guide/book 2001 = 19.4% 2002 = 14.9% • Word of mouth 2001 = 41.0% 2002 = 30.4%

Appendix 5: Comparative Data for Henrietta Creek

Table 20 provides comparative data based on the visitor site surveys undertaken at Henrietta Creek in 2001/2002 by Bentrupperbäumer (2002c) and in 2008/2009 by Carmody and Prideaux (2011g). Only selected results are presented.

Note that Bentrupperbäumer (2002c) had two stages of data collection – 2001 dry season and 2002 wet season. Carmody and Prideaux (2011g) used a convenience sampling and surveying period.

Table 20: Comparative survey results for Henrietta Creek.

	Data from 2009/2010 survey Published by Carmody and Prideaux (2011g) (N=96)	Data from 2001/2002 survey Published by Bentrupperbäumer (2002c) (N=99)
Origin of respondents	Domestic visitors 67.7% International visitors 32.3%	Domestic visitors 2001 = 61.4% 2002 = 37.9% International visitors 2001 = 38.6% 2002 = 62.1%
Age of respondents	Mean age 43 years	Mean age 2001 = 38.7 years 2002 = 36.9 years
Education levels	Majority Tertiary B 52.7%	Majority 2001 = Tertiary B 42.0% 2002 = Tertiary B 72.4%
Motivations to visit Likert scale of 1 'not important' to 6 'very important'; mean reported	<ul style="list-style-type: none"> 'To see natural features and scenery' Mean = 5.21 'To be close to/experience nature' Mean = 4.92 'To experience tranquillity' Mean = 4.67 	<ul style="list-style-type: none"> 'To see natural features and scenery' 2001 Mean = 5.00 2002 Mean = 5.31 'To be close to/experience nature' 2001 Mean = 5.08 2002 Mean = 4.93 'To experience tranquillity' 2001 Mean = 4.89 2002 Mean = 3.96
Activities	<ul style="list-style-type: none"> Observing scenery (66.3%) Relaxing (54.8%) Picnic/Barbeque (54.7%) Photography/painting/drawing (51.6%) 	<ul style="list-style-type: none"> Observing scenery 2001 = 51.4% 2002 = 82.8% Relaxing 2001 = 48.6% 2002 = 41.4% Short walk 2001 = 31.4% 2002 = 51.7% Observing wildlife 2001 = 27.1% 2002 = 37.9%
Time spent at site	<ul style="list-style-type: none"> Less than ½ hour (18.1%) About ½ hour (18.1%) 	<ul style="list-style-type: none"> Less than ½ hour 2001 = 24.6% 2002 = 24.1% About ½ hour 2001 = 24.6% 2002 = 17.2%
Prior information about the site	<ul style="list-style-type: none"> Road signage (40.4%) Knowledge from a previous visit (29.8%) 	<ul style="list-style-type: none"> Previous visit to the site 2001 = 30.0% 2002 = 10.3% Road signage 2001 = 44.3% 2002 = 27.6% Word of mouth 2001 = 15.7% 2002 = 24.1% Map 2001 = 10.0% 2002 = 37.9%