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## Visitor expectations of contact with staff at a protected site\*

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### Abstract

The importance of managing visitor expectations has been highlighted in natural and protected areas. However, minimal research has been completed on visitor expectations of contact with staff in national parks and protected areas. Staff can play an important role in delivering information and in interpreting significant natural and heritage attributes. This research aims to address this gap by examining visitors' expectations regarding staff contact at one protected site, Cape Byron State Conservation Area (CBSCA) in New South Wales, Australia. A mixed method approach including interviews with staff and a survey of park visitors was implemented to achieve the research aim. Results indicate that visitors have a diverse range of expectations of park staff regarding when, where and how staff are expected to provide services and information. Peak season visitors were more likely to want information about European heritage and the lighthouse than were off season visitors. Visitors over 25 years of age were significantly more likely to expect information about wildlife, native plants and vegetation, the marine environment, whales and whale watching, Indigenous heritage, European heritage and recreation opportunities within CBSCA than visitors under 25. Visitors between 36 and 45 years of age were the most likely to participate in activities involving staff. Overall, visitors were no more likely to participate in activities involving staff than in self-directed activities. Finally, some implications for the management of CBSCA and avenues for future research are proposed.

**Keywords:** visitor expectation; staff; interaction; national park; interpretation; Cape Byron

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## Introduction

Natural and protected areas, such as national parks, are places set aside to preserve natural, cultural or historic assets deemed to possess significant value (Lockwood et al., 2006). Although the conservation of such assets is central to the mission of protected areas, the abundance of outdoor recreation opportunities available have transformed many parks into places for visitors to experience and enjoy (Dumitras et al., 2012). This situation has left park managers across the globe with the complex task of balancing the need to conserve the natural environment with the desire to provide a satisfying experience for visitors (Fletcher and Fletcher, 2003).

Increasing visitor numbers provide a range of challenges for park management, including significant investment in resources and services aimed at meeting visitors' expectations (Eagles, 2002). Park visitors' expectations may range from infrastructure (e.g. roads and parking), facilities (e.g. picnic shelters and toilets), services (e.g. cafes, restaurants and children's programs) to communication (e.g. directional information, access and safety information, facility and services information and interpretation) (Chen et al., 2011). Previous studies on visitors to natural and protected areas have focused on how these factors contribute to the visitor experience and overall satisfaction (Akama and Kieti, 2003). Understanding visitor expectations of both the experiential (appreciation of scenic beauty) and service specific attributes (provision of clean toilets) have been a dominant focus in protected area research on visitor satisfaction (Moyle and Croy, 2009). Nonetheless, few studies have focused on what visitors expect of staff at a protected area site.

The importance of staff contact in relation to customer satisfaction has been recognised in service related studies, including sectors of the tourism industry such as hotels and visitor centres (Barsky and Nash, 2003; Smith and Holmes, 2012). Staff have also been identified as being important to the visitor experience in parks and protected areas (Fletcher and Fletcher, 2003). Staff presence can be an important vehicle for providing information and communicating site values, but employing staff for these purposes can also be expensive. Despite this recognition there is still a lack of research with respect to what visitors expect of staff in protected areas, especially their expectations regarding the time and location where staff should be present and the communication services staff are required to provide to meet visitor expectations.

Consequently, the present study focuses on visitors' expectations of their interaction with staff at a protected site, including the provision of information and interpretation. In contrast to communication such as signs, exhibits and other forms of non-personal communication, face-to-face or personal contact between visitors and staff enables staff to directly respond to the visitor; face-to-face contact therefore allows park staff to adjust communication according to an individual's or group's expectations, which not only enhances the visitor experience but also leads to greater success in achieving the aims of the communication (Ham, 2002). This research seeks to fill a gap in current literature on visitor expectations of staff in protected areas, which in turn is aimed at contributing to better utilisation of staff contact as a park management tool, particularly in enhancing the visitor experience.

## Literature review

Visitor satisfaction in natural and protected areas has emerged as an important area of research for park management agencies. Often studies use the multi-phase recreation experience model to understand the factors that influence visitor satisfaction (Moyle and Croy, 2007). The recreation experience model consists of five sequential phases – anticipation, travel to, on-site, travel back and recollection – suggesting that the visitor experience is a multi-phase process (Hammit, 1980). Each phase within the recreation experience model has the potential to provide satisfaction to the visitor and therefore contributes to the overall visitor experience in national parks and protected areas (Moyle and Croy, 2009). Despite this, previous studies tend to focus on the on-site dimensions of the visitor experience (Kanga and Gretzel, 2012).

Although a majority of previous studies focused on the on-site phase of the visitor experience a number have focused on the anticipation stage of the recreation experience model (Valentine et al., 2004; Ye and Tussyadiah, 2011). During the anticipation phase, visitors form expectations based on information, images and previous experiences (Moyle and Croy, 2009). Visitor expectations have been identified to determine performance as well as to shape perceptions of products, services and experiences (Ye and Tussyadiah, 2011). As such, the evaluation of expectations is sometimes seen as a component or antecedent to visitor satisfaction (Akama and Kieti, 2003; Chen, et al., 2011; Meletis and Harrison, 2010). Ye and Tussyadiah (2011) emphasise this point, commenting that visitor expectations must be addressed to guarantee a satisfying experience. As a result, previous research has applied expectation-disconfirmation theory as the basis to determine visitor satisfaction in national parks (Moyle and Croy, 2007). However, there has been limited research on what visitors expect of staff at a protected site.

Visitor expectations of staff are especially important for parks with large numbers of visitors, where managers are challenged to meet visitor expectations with high demand for services including staff contact on the one hand and limited capacity and resources on the other (Shin et al., 2001). Compounding this issue in recent years, visitors have come to play an increasingly important role in national park and protected area management and decision-making, thus their preferences have become more influential (Arabatzis and Grigoroudis, 2010). Candrea (2008) highlights that understanding the visitor is important for quality management and that visitor expectations should be measured and monitored. Monitoring of visitor expectations would improve the management decision-making process which, according to Arabatzis and Grigoroudis (2010), is often characterised by a lack of information and limited adaptability to new demands and visitors' interests. Therefore, to provide quality staff contact, parks and protected area managers require information regarding visitor expectations (Obua and Harding, 1996).

Previous studies in natural and protected areas have identified that appropriate levels of service and service quality increase tourist satisfaction (Chen et al., 2011; Tian-Cole et al., 2002). In Chen et al.'s study, they examined visitors' satisfaction of the main services provided in a national park, including personnel service and interpretation service. The findings of this research indicate that service quality results in higher levels of visitor satisfaction (Chen et al., 2011). According to Candrea (2008: 211), quality only exists to the extent that a product or service meets customer expectations. Moscardo (1998), and Weiler and Ham (2001) have identified that in many tourism and recreation settings, visitor communication or interpretation is a crucial part of the experience or is the experience itself. According to Moscardo and Ballantyne (2008), one of the two key roles of interpretation is to build a rewarding visitor experience by offering visitors mental and physical access to a site

or topic and its significance. In addition, Zeppel (2008) states that visitor learning for enjoyment is an important element of the visitor experience. In a large study by Ham and Weiler (2007), the global satisfaction of visitors to one protected area (Panama Canal Watershed) was found to be primarily due to the five interpretive dimensions of their experience (e.g. visitor centre presentations and explanations by staff), as compared to the other six non-interpretive elements of the experience (e.g. recreational facilities and amenities). Interpretation services provided by protected areas and national parks help visitors to not only achieve their recreation goals but furthermore inform visitors about preservation and conservation and therefore fulfil an education and information function (Manning and Anderson, 2012).

According to Chen et al. (2006: 1168), “personal (face-to-face) interpretation is the most direct and effective approach to interpretation services”. Similarly, several studies identified contact with park personnel or agency staff as being one of the most effective visitor education methods in protected areas (Marion and Reid, 2007; Manning, 2003). Contact with staff in protected areas can provide several advantages in delivering messages due to the fact that humans, compared to installations (e.g. panels, signs) or printed interpretive material, can adjust their methods according to the audience (Ham, 2002). On the other hand, face-to-face interpretation is more costly (Chen et al., 2006). Visitors’ expectations of staff contact and service with respect to providing information and interpretation is an important element of service expectations, yet one that has been largely overlooked in park management literature. Knowing what visitors expect may help enhance visitor satisfaction, increase the efficiency and effectiveness of management planning and contribute to achieving management goals.

Although under-researched in protected areas, the importance of interaction with staff has been highlighted in a range of studies focused on the visitor experience in other contexts (Ellis and Rossman, 2008; Smith and Holmes, 2012). In outdoor recreation, the performance and character of staff has been identified as an important factor influencing the visitor experience (Ellis and Rossman, 2008). In general, managing personnel is a challenging issue for public organisations due to limited financial resources and high numbers of volunteers and seasonal employees (Ellis and Rossman, 2008). Smith and Holmes (2012) state that involving volunteers in visitor centres enhances the visitor experience in part because it fosters links to host communities and interactions with local people.

Fletcher and Fletcher (2003) examined manageable factors relevant to the outdoor recreation experience and determined that park personnel have one of the strongest relationships to visitor satisfaction (next to maintenance of the park). Other studies confirm the positive effect of staff being present, such as wilderness rangers (Manning, 2011), and note the importance of personal contact by staff in terms of communication and education (Doucette and Cole, 1993). As a result, staff contact has been identified as an important area of focus for both park managers and researchers (Fletcher and Fletcher, 2003). However, previous studies have not considered the role that staff presence can play in the visitor experience.

The aim of this research was to examine visitors’ expectations of staff contact at one high-use protected site in Australia. Based on a process of consultation with protected area managers, Cape Byron State Conservation Area (CBSCA) in Australia was selected as the case study to achieve this aim. First, this paper explores how visitors currently interact with staff at the site. Second, the paper identifies the range of expectations visitors have of staff contact at the site. Third, differences in expectations of staff between peak and off season (times of high and low visitation) and for visitors with different demographic characteristics are examined.

## **Cape Byron State Conservation Area**

CBSCA is located adjacent to Byron Bay, on the east coast of New South Wales, Australia (Baker, 2002). Over 1 million visitors travel to Byron Bay each year, making tourism an important part of the region's economy (Byron Shire Council, 2009). According to Baker (2002), four out of the seven most popular attractions in the Byron Bay area are located within CBSCA, including the Cape Byron lighthouse. Its aesthetic, scientific, economic, historical and contemporary social values make it one of the most visited lighthouses in Australia (Ellsmore et al., 2008). From the lighthouse, visitors have 360° views of the ocean, the town of Byron Bay and Mount Warning. Between June and November, visitors can watch the annual migration of humpback whales. Furthermore, the CBSCA and the lighthouse reserve offer a range of recreational activities including rainforest walks, hang glider flights and marine wildlife viewing opportunities. The lighthouse functions as a symbol for the area and is utilised by many local enterprises to help promote their identities (Ellsmore et al., 2008). In addition to the lighthouse, Cape Byron's scenic appeal and its position as the most easterly point on the Australian mainland means CBSCA itself attracts over 1 million visitors annually (Ellsmore et al., 2008). Consequently the management and conservation of CBSCA is immensely important to the local tourism industry.

CBSCA is managed by New South Wales National Parks and Wildlife Service (NPWS), which is part of the Office of Environment and Heritage. Some of the key goals of the management of CBSCA are to provide appropriate visitor access and facilities, to engage visitors with the local environment of the reserve and to simultaneously regenerate and sustain its natural, cultural and recreational values (Baker, 2002). During background discussions with the CBSCA management team it was identified that NPWS provide staff at the site: three rangers, four Visitor Service Officers (VSOs) and two souvenir shop staff. During each day one ranger is at the site intermittently, one VSO (two during school holidays) is on site, and one person is in the shop. An Education Officer is also present three days a week. The rangers and the VSOs both act as parking officers. Volunteers are mainly appointed in the lighthouse museum. There is a cafe at the site which is a private business employing its own staff.

## **Method**

A sequential mixed methods design, consisting of two stages of research, was implemented at CBSCA. Stage 1 included a series of semi-structured interviews with ten staff members (including cafe staff) at CBSCA, conducted in March 2012. The purpose of the interviews was to determine how visitors currently interact with staff at the site primarily to inform the design of Stage 2. The open-ended interview questions were developed through a process of consultation with park management and refined using a pilot testing procedure (Teijlingen and Hundley, 2001; Taylor-Powell, 2008). Interview questions covered four key areas: the most frequent questions asked of staff, visitors' interests, the types of visitors who tend to seek interaction with staff and the high and low times of interaction during the day and week. Staff who participated in the interviews included rangers, VSOs, souvenir shop staff, cafe staff and volunteers. A series of key themes were identified from the interviews which were then used to inform Stage 2 of the research.

Stage 2 involved the administration of a self-completed questionnaire to visitors at CBSCA. The content of the questionnaire was derived from four sources: previous literature, the results of Stage 1 interviews, the Cape Byron management plan and a process of consultation with the manager of CBSCA. A self-completion questionnaire is a common tool in many tourism-related studies to collect information about visitors (Veal, 2011;

Lertwannawit and Anuwichanon, 2011). The purpose of the questionnaire was to elicit visitor expectations of staff contact, and to determine if demographic characteristics influence expectations of staff. In order to examine differences in expectations between peak and off seasons, the survey was administered in two phases, one at the end of March and one over the Easter long weekend in April 2012, thus capturing both low and high seasons.

To overcome sampling constraints (e.g. weather and limited research time and personnel), a systematic sampling approach was used to select participants (Neuman, 2006) which was adjusted in accordance with the number of visitors present at any given time. Visitors entering the site via the car park to the south or the footpath to the north were intercepted as they crossed an imaginary line. A total of 244 visitors were surveyed over two phases, 123 in phase 1 (off season) and 121 in phase 2 (peak season); the refusal rate was 11.9%, with the main reasons given for refusal including a lack of time, lack of English language skills and lack of reading glasses.

The questionnaire's closed questions included tick box response options, yes/no questions, and 7-point Likert-type scale items (Tharenou et al., 2007; Smith, 2010). The questionnaire was divided into four sections (Michael and Reiling, 1997) including trip characteristics, visitor expectations of their experience, expectations of staff contact and socio-demographics. To maximise the number of participants and reduce respondent fatigue, the survey was designed to not exceed ten minutes per questionnaire. Descriptive statistics such as frequencies and means were used to gain a profile of visitors with respect to gender, age and nationality (Dumitras et al., 2012). Independent sample t-tests were used to determine significant differences in expectations between off season and peak season visitors as well as significant differences in expectations of staff between visitors with different demographic characteristics. Differences were measured with a 5% level of significance.

As there are no reliable data on the profile of CBSCA visitors the representativeness of the sample is difficult to assess. Of the 244 respondents surveyed at CBSCA, 56% were female and 44% male. The largest respondent age group was between 26 and 35 years (39%), followed by the age group 18-25 years (26%). Most participants were first time visitors to the site (58%). Just over half the visitors were Australian (54%), with the remaining 46% of visitors coming from overseas, of whom the largest proportion came from Great Britain (10%), followed by visitors from Germany (5%), the United States (3%) and Ireland (3%).

This research contains several limitations that should be noted. First, although expectations were measured prior to respondents accessing the site, they were not measured at the 'anticipation' or 'travel to' stage of the experience. In addition, non-visitors and non-English speakers were excluded and times of data collection were limited. The two phases chosen to represent off season and peak season (even though confirmed by staff) were close together and did not include the whale-watching season or Christmas holidays. Respondents had limited opportunity to provide written or verbal comments and were not asked to evaluate service quality or satisfaction. It is not known how representative the sample is of all visitors to the Cape Byron lighthouse. Finally, this research only examines the visitor perspective on the role of staff and does not include management's perspective.

## **Results**

### ***Visitor interaction with staff at CBSCA***

The results of the ten interviews with staff at CBSCA provide some insight into the current interaction between visitors and staff. Staff identified that tourists (rather than locals)

frequently interact with staff, with backpackers and visitors over 40 years old being the two most commonly identified groups. Staff members also reported that older people (between 50 and 60 years of age) are particularly likely to interact with staff. The most frequently identified questions directed at CBSCA staff were found to centre on whales, the lighthouse and access to facilities and services.

Staff identified that the busiest periods of the year for interaction between staff and visitors are school holidays, public holidays such as Christmas and Easter, over weekends and during whale season. According to staff, their interaction with visitors is at its lowest during the week (Monday to Friday), in winter and after the whale season. Staff also identified the highest levels of interaction as occurring between 10am and 12pm and around 3pm each day. Three staff members indicated that their interaction is lowest in the late afternoon, while two staff members stated that their interaction is lowest during lunchtime. Interactions with visitors were also found to vary depending on the type of staff member, with cafe staff indicating they were very busy earlier in the morning, whilst parking officers and staff at the souvenir shop were found to be busier later in the day. Finally, a number of staff members mentioned that interaction is dependent on the weather conditions; that is, the times with the highest levels of interaction were good weather days.

### ***Visitor expectations of staff at CBSCA***

As shown in Table 1, visitor expectations on the presence of staff and the services provided by staff vary. Nevertheless, a majority of visitors (68%) expect cafe staff to be present and 59% of visitors expect a park ranger. The main service visitors expect is that of 'providing information and answering questions' (83%) and 'selling food/drinks/souvenirs' (72%). Most visitors do not expect staff to provide activities for children (83%).

INSERT TABLE 1 HERE

In order to ascertain how likely visitors are to participate in different information and interpretation activities, participants were required to mark their likelihood on a 7-point Likert-type rating scale ranging from 1 (not at all likely) to 7 (extremely likely). As displayed in Table 2, visitors reported being most likely to climb the lighthouse tower with a mean of 5.0. No item had a mean score over 5 (moderately likely) and only one item was over 4 (the mid-point of the 7-point scale). Visitors are only somewhat likely to join a 30-40 minute guided tour with a park ranger or volunteer or use a self-guided audio tour. Thus, the likelihood of participating in an activity involving staff contact is no higher or lower than a self-directed activity.

INSERT TABLE 2 HERE

Overall, visitors are most likely to want information about 'the lighthouse' with a mean of 5.5 on a scale of 1 to 7 as presented in Table 3. Information about 'whales' (mean of 5.1) and the 'marine environment' (mean of 5.0) are also 'moderately important'. The theme with the lowest mean importance was information about 'recreation opportunities within the CBSCA'.



Results indicate that peak season visitors are significantly more likely to want information from staff about European heritage ( $p = 0.03$ ) and about the lighthouse ( $p = 0.04$ ). No significant differences were found between peak and off season visitors regarding other types of information (as shown in Table 3).

Characteristics such as gender, age and origin were tested for differences in expectations. Australian visitors were significantly more likely to seek information from staff about European heritage ( $p = 0.05$ ) than international visitors. There were no significant differences between male and female visitors regarding expectations of information from staff.

When testing age groups, two new variables were created: one for visitors 25 years and under and the second for visitors over 25 years. Results revealed that visitors over 25 are statistically more likely to want information from staff about 'wildlife', 'native plants and vegetation', 'marine environment', 'Indigenous heritage', 'European heritage', 'recreation opportunities within the CBSCA', 'whales' and 'whale watching' than younger visitors (Table 3).

INSERT TABLE 3 HERE

To identify whether age has an effect on the likelihood of visitors to participate in different activities, respondents were grouped into different age groups. Results show that visitors aged 35 years and younger are significantly more likely to climb the lighthouse tower ( $p= 0.028$ ) than visitors over 35 years. Furthermore, visitors aged 45 years and younger are significantly more likely to climb the lighthouse tower ( $p= 0.004$ ) and to use a smartphone app ( $p= 0.003$ ) than visitors over 45 years. Figure 1 illustrates the means of each age group separately and shows that visitors between 26 and 45 years of age are most likely to use a smartphone app. Visitors between 36 and 45 years are most likely to participate in activities involving staff. Finally, climbing the lighthouse tower is the activity most likely to be undertaken by visitors of all age groups (Figure 1).

INSERT FIGURE 1 HERE

## **Discussion**

As a protected site, the key aims of CBSCA are to conserve the natural and cultural heritage of the park and to increase visitor knowledge of and interest in these attributes rather than to generate profit (Chen et al., 2011). As a result, some of the services provided by staff are focused on regulating visitor activities such as managing parking at the lighthouse. This research found that most visitors expect staff to provide information and answer questions (83%). At CBSCA, the VSO duties are to collect parking fees as well as answer questions visitors might have. Furthermore, VSOs share the role of guiding the lighthouse tours with some of the rangers. Therefore, in addition to being parking officers they contribute to informing visitors about attributes such as the marine environment, wildlife and service-related information. The mixed role enables VSOs to meet visitors' expectations as well as management needs in relation to parking. This is an example of using staff efficiently, benefiting both visitors and management. Research in other service sectors such as the hotel industry has identified a similar trend where the traditional functions of employees are

merged and new combinations of skills within occupations are required (Browning et al., 2009; Chen and Wallace, 2011).

Results also show that visitors expect cafe staff to be present (68%) as well as to provide the associated service of selling food/drinks (and souvenirs) (71%). Therefore, in meeting visitors' expectations and consequently increasing satisfaction, the cafe is an important component. Staff at the cafe are not part of the NPWS. Nevertheless, due to the high expectations visitors have regarding the provision of food and drinks at the site, it is likely that a lot of visitors use the services provided by the cafe and hence interact with cafe staff. Therefore, it may be both feasible and advisable to train and mandate cafe staff to provide information and interpretation about the site. This could be achieved by either adding this as a condition of licensing or by putting incentives in place.

Overall, the results demonstrate that respondents' expectations to participate in activities provided at the site are fairly low. No mean value was higher than 5 (moderately likely) except the likelihood of visitors under 25 year of age to climb the lighthouse; all means except the mean for 'climbing the lighthouse tower' were lower than 4. This result suggests that most people do not expect these activities at the site. This is not to suggest that such activities could not enhance visitor satisfaction, but rather that failing to provide these activities is unlikely to lead to dissatisfaction. It also suggests that more information may need to be provided to visitors prior to their visit if management decides to provide the named activities. Research conducted into visitors' experiences on the Great Barrier Reef identified a similar issue, which found that often visitors did not know about available tours and programs and the time required for these activities until they arrived at the destination (Moscardo, 1998).

Furthermore, results of this research indicate that park staff experience a change in intensity of interaction with visitors depending on the season. Therefore, differences in expectations between off season and peak season visitors regarding information provided by staff can help management of national parks and protected areas in decisions regarding scheduling staff effectively in times of very high visitation. On the other hand, the results may also help point to areas of staff contact that can be reduced during off season or times of very low visitation. This is similar to the findings of research conducted by Higham and Hinch (2002) who argue that although seasonality is one of the most prominent features of tourism, it is also one of the least understood. Higham and Hinch (2002) found that the tourism industry attempts to moderate these fluctuations through marketing strategies such as 'shoulder seasons' or in creating 'all season' destinations (Higham and Hinch, 2002). CBSCA has natural features such as migrating whales which attract visitors during some of the quieter times of the year. Other values, such as views and the natural and cultural heritage of the site can also be experienced independent of high or low seasons. However, not all destinations and attractions have the resources, nor are suitable, for high year-round visitation, which is why adaptation to times of high and low visitation is necessary.

This research found a number of key differences in the expectations of younger visitors (25 years and under), compared to visitors over 25 years of age. Comparing types of information provided by staff, visitors over 25 years consider information about natural and cultural features to be significantly more important than younger visitors. Results show that no significant differences in expectations were found with respect to information on facilities and service provisions. Furthermore, visitors between 36 and 45 years of age are the most likely to participate in information and interpretation activities that involve contact with staff. Overall, visitors over 25 years have higher expectations and interest regarding interpretation and information about CBSCA's natural and cultural features. This finding answers a

question raised by Kendall (2009), who called for more research that could identify the different interests of visitors in diverse age groups to better target each group. Knowing the particular interests of this age group provides management with the opportunity to specifically target and attract visitors over 25.

This study did not identify any types of information which were significantly more important to younger visitors (25 years and under). Nevertheless, in this study, visitors between 18 and 25 years represent over a quarter of respondents (26%) and previous visitor surveys confirm that this is reflective of actual visitor numbers (Kendall, 2009). Younger visitors may have interests or motivations to visit the site other than information and interpretation. Kim et al. (2003) found that age has an influence on national park visitors' push and pull motivational factors. Comparing several pull and push factors, visitors aged 29 years and younger rated push factors such as 'escaping from everyday routine' and 'adventure and building friendship' as more important than visitors over 40 years of age. Similar to the findings of this study, Kim et al. (2003) found that on the other hand, older visitors rated pull factors including 'information and convenience of facilities' higher than younger visitors. This finding is similar to that of Chen-Hsuan Cheng and Monroe (2012), who concluded that we need to engage young people in nature and conservation to positively affect their attitude towards nature and their connection to nature. To understand what younger visitors expect of staff contact and how to best engage them, further research should address visitors under 18 years old. Given the dual mandate of the NPWS as stated earlier – to provide appropriate visitor access and facilities as well as to protect and sustain park values – it is important to find ways to connect with this age group while still fulfilling their travel preferences.

### **Conclusion, implications and future research**

This research examined visitor expectations of staff contact at one protected site. Contact with park staff has been identified as contributing to the visitor experience and to be a useful management tool in providing information and communicating conservation messages. A mixed methods approach was used to examine the full range of expectations visitors might have of staff at the CBSCA. An additional aim was to compare the expectations of peak and off season visitors as well as visitors with different demographic backgrounds. Significant differences in expectations of information provided by staff were found between off and peak season visitors and between younger visitors (25 years and under) and visitors over 25. These findings highlight not only what visitors expect, but more importantly that expectations vary between different groups of visitors. Perhaps the most important result is the differences that age has on visitor expectations of staff at the site.

The results of this research provide parks agencies with a range of management implications which can assist in both decision-making and enhancing the visitor experience. Protected area management should consider increasing the degree to which staff are given the freedom to multi-task during peak periods or times of the day. According to the results presented in this study, it may be strategic to train cafe staff at the site to provide information to visitors and to be able to answer questions about natural and cultural features of the CBSCA. This way, service staff would be able to perform their usual duties and simultaneously answer questions and provide information to satisfy visitors' expectations and enhance the visitor experience.

Expectations of visitors to meet staff at the site were quite high. Therefore, a challenge for management may be to utilise marketing appropriately to not promote unrealistic expectations of the level of staff contact (Valentine et al., 2004). In addition, this study

revealed that expectations between off season visitors and peak season visitors vary. This information can assist in scheduling extra staff in times of high visitation to provide particular information required by peak season visitors, for example. Finally, protected area management should keep information and interpretation of natural and cultural features up to date. This research identified that visitors over 25 years are more likely to consider information about natural and cultural features of the CBSCA to be important. To enhance the visitor experience of this group, which may represent as much as three quarters of visitors to the Cape Byron Lighthouse Precinct, staff need to be able to provide this information. Furthermore, a positive visitor experience will help to achieve other management aims identified in the Cape Byron management plan: affect the public image of the area and help increase awareness and encourage appropriate visitor behaviour (Baker, 2002).

In addition to management implications, this research provides important theoretical implications. The findings contribute to theory by building on the debate in park management literature on visitor expectations, in particular on the five phased recreation experience model, by uncovering visitor expectations formed prior to the on-site stage of the visitor experience. This research addresses a gap in current literature on visitor expectations in relation to national parks and protected areas, particularly on what visitors expect regarding contact with staff in a park setting. As such, this research contributes to a better understanding of visitor expectations of staff at a protected site which are formed during the anticipation phase of a recreation experience and which might influence the visitor experience. This research has also gained insights into the role that park staff can play in the creation, management and delivery of visitor expectations.

Future research should replicate the study at the same site during whale season, as well as replicate the methods at other sites. Furthermore, Candrea (2008) suggests a regular system of checking to ensure management decisions are meeting visitor expectations. Research results identified a greater interest in staff contact from visitors over 25 years old. Since young visitors (under 25) may represent over a quarter of visitors to the site, future research should address the expectations of that generation and design a plan for integrating their interests into visitor interpretation and education. In addition, this survey did not collect data for visitors younger than 18 years. Data should be collected about group compositions of visitors and in particular the presence of children in the group. This research found that visitors aged 26-45 years are more likely to use a smartphone app. To generalise this finding, further studies should address the likelihood of visitors to national parks and other protected areas of using smartphone apps as information/interpretation tools. This study found that expectations of staff contact vary significantly between visitors in different age groups. To identify if this is a general issue, further research should explore the influence of age on visitor expectations of staff in other national parks or protected areas. Finally, future research should address the quality of and visitor satisfaction with staff service within national parks and protected areas.

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Table 1. Visitor expectations of staffing times, type of staff and type of services.

		<b>Frequency</b>	<b>Percentage</b>
Times when visitors expect staff to be present	During peak season and weekends	100	42.4
	Every day	64	27.1
	Only during peak season	49	20.8
	Every weekend	23	9.7
Staff who visitors expect to be present	Cafe staff	165	67.9
	Park Ranger	144	59.3
	Shop staff	127	52.3
	Volunteers	115	47.3
	Other	4	1.6
Services that visitors expect staff to provide	Providing information/ answering questions	202	83.1
	Selling food/drinks/ souvenirs	174	71.6
	Giving information talks	132	54.3
	Leading guided lighthouse tours	127	52.3
	Running activities for children	42	17.3
	Other	3	1.2

Table 2. Likelihood of visitors to participate in different activities.

<b>Activity</b>	<b>Mean</b>
Climb the lighthouse tower	5.0
Interact informally with a roving park ranger or volunteer*	3.6
Attend a 45 minute lighthouse tour*	3.4
Use a smartphone app specially developed for the Lighthouse precinct	3.3
Attend a 15 minute scheduled talk by a park ranger or volunteer*	3.2
Join a 30-40 minute guided tour with a park ranger or volunteer*	3.0
Use a self-guided audio tour	2.9

\* activities involving staff contact



Table 3. Expectations of visitors regarding types of information to be provided by staff.

Types of information	All visitors (Mean)	Visitors 25 and under (Mean)	Visitors over 25 (Mean)	t-test
The lighthouse	5.5	5.3	5.6	0.23
Whales	5.1	4.7	5.3	0.02*
Marine environment	5.0	4.7	5.2	0.03*
Whale watching	4.8	4.4	4.8	0.03*
Access to facilities	4.7	4.4	4.8	0.12
Indigenous heritage	4.6	4.1	4.8	0.01*
Wildlife	4.5	4.0	4.7	0.01*
Directions	4.5	4.3	4.6	0.20
Services provided at the lighthouse reserve	4.4	4.1	4.5	0.10
The town Byron Bay	4.4	4.4	4.4	0.93
Native plants and vegetation	4.4	3.9	4.6	0.01*
European heritage	4.0	3.4	4.1	0.00*
Recreation opportunities within the CBSCA	3.9	3.5	4.1	0.02*

\*significant at the 0.05 level

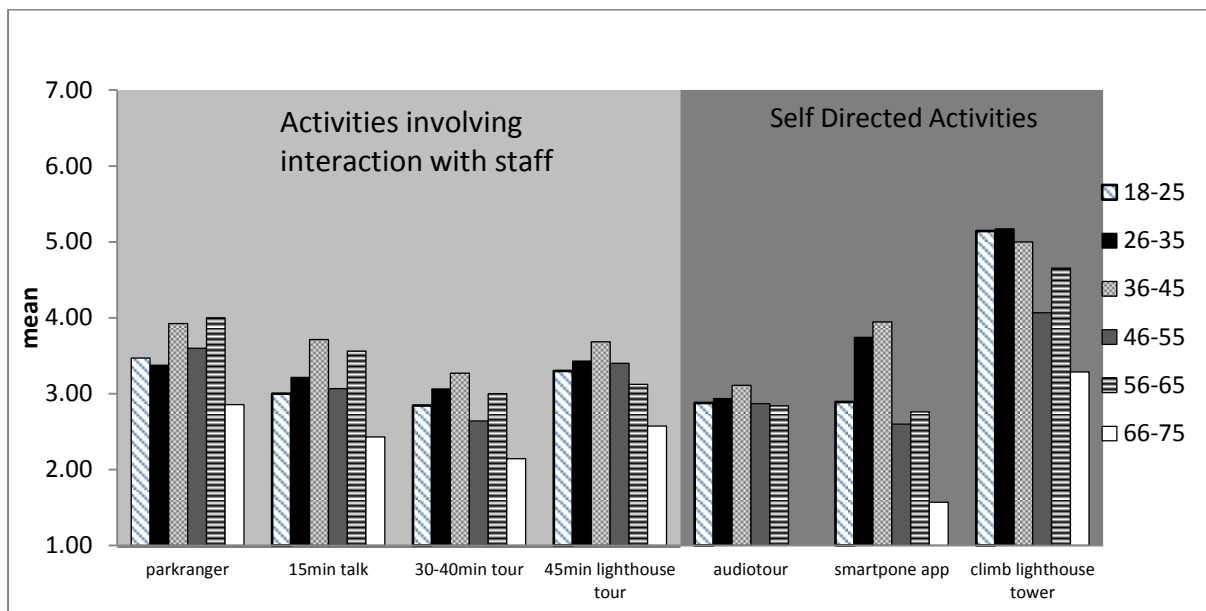


Figure 1. Likelihood of visitors to participate in different activities according to age group.