

# Tourist Characteristics Influence Outcomes When Feeding Australian Humpback Dolphins in South East Queensland, Australia

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**Keywords:** Australian humpback dolphins, dolphin feeding tourism, visitor perspectives, satisfaction, behavioral intentions.

**Abstract:** This study of visitor response to a dolphin-feeding tourism experience showed that satisfaction with closeness to the dolphins is an expectation and desired outcome of the experience, and should be considered in terms of best practice, better management and in re-thinking existing experience structure and design. If wildlife experiences are not well structured and within a context of a code of best practice, and guidance is not given in situ in how to behave after participation, it is likely that the conservation benefits of the experience will be lost. Experiences should be orientated to deliver adequate closeness to the wildlife with effective interpretation, which, in turn, can be influential on visitor satisfaction and enjoyment and in the long term, can bring conservation benefits for the wildlife and associated environment.

## 1 INTRODUCTION

The social and physical environment where people interact with a phenomenon have an influence on their behavioral and psychological processes (Altman, 1987). When applied to dolphin feeding experiences, Interactional Theory (Altman, 1987), (Powell et al., 2009) suggests that visitor characteristics interact dynamically with features from the setting to influence human responses to a phenomenon. This study explored visitor characteristics and their influence on potential outcomes from organized tourist feeding Australian humpback dolphins (*Sousa sahulensis*). Tourists' socio-demographic characteristics and expectations of the dolphin feeding experience affected knowledge attained, experience satisfaction, and reported intentions to behave and act to conserve wildlife and/or dolphins and their environment.

## 2 METHODS

This case study encompasses the dolphin feeding tourism activity occurring in the township of Tin Can Bay, South East Queensland. This is the only place in Australia, to our knowledge, where the hand feeding of *S. sahulensis* takes place. It is a small community of 2,242 inhabitants (abs, 2016), located 218

km north of the state capital Brisbane, on a peninsula between Snapper Creek and the Great Sandy Strait. A questionnaire (adapted from (Mayes et al., 2004)) was used to identify dolphin-feeder perspectives after their participation in the dolphin feeding activity. The questionnaire included (a) visitor socio-demographic characteristics (age, gender, level of education, nationality, number of visits to the site and how long ago) and closed-ended questions with a Likert scale design for (b) expectations, (c) overall satisfaction, (d) satisfaction with particular aspects of the experience, (e) self-reported pre and post-participation knowledge, (f) intended pro-environmental behaviors and (g) intended pro-environmental actions. Statistical analysis (Chi square test) was used for comparison of pairs of variables.

## 3 RESULTS

Data from 217 questionnaires were used for the analyses. Most respondents were female (63.7% female; 28.7% males, n=206), aged in the categories of 25-34 and 35-44 years (31.4% and 30.9%, respectively; n=208), with high levels of education (university, 52.9%, n=206; high school, 17.5%, n=205). Most were domestic visitors (81.6%, n=208), travelling mainly as family groups (43.5%, n=209) and

couples (22.9%, n=208). Most respondents were first time visitors (80.3%, n=217) or had visited between two and four times (15.2%, n=217). Of repeat visitors, the majority had fed the dolphins between 1 and 5 years ago (8.5%, n=43).

### 3.1 Expectations

All individual items used to measure the variable ‘Visitor expectations with aspects of the interaction’ were considered ‘important’ to ‘extremely important’ by most participants. The most important expectations were opportunity to see the dolphins (91.5%, n=223) and seeing the dolphins in their natural environment (90.5%, n=222). These were followed by being able to get close to the dolphins (87%, n=223), seeing dolphins easily (85.2%, n=223) and interesting information about the dolphins (78.7%, n=223), availability of knowledgeable guides/staff (74.3%, n=222) and opportunity to feed the dolphins (73.9%, n=222). Gender had significant effects on the importance of three expectations: opportunity to see the dolphins, seeing dolphins easily and being able to get close to the dolphins (Figure 1). These three expectations were ‘important’ to ‘extremely important’ for most of the visitors (92.2%, n=190).

Expectation	Gender	Nationality (domestic Australian or international)	Number visits (1st, 2-4 times, 5-10 times)
Opportunity to see the dolphins	(X <sup>2</sup> (1,n=206) =5.288, p=0.045,φ=0.159)	p>0.05	p>0.05
Seeing dolphins easily	(X <sup>2</sup> (1,n=206) =11.534, p=0.002,φ=0.243)	p>0.05	p>0.05
Being able to get close to the dolphins	(X <sup>2</sup> (1,n=206) =8.447, p=0.010,φ=0.210)	p>0.05	p>0.05
Interesting information about the dolphins	p>0.05	(X <sup>2</sup> (2,n=221) =3145.000, p=0.013,φ=0.214)	p>0.05
Opportunity to feed the dolphins	p>0.05	p>0.05	(X <sup>2</sup> = (2, n=216) =15.317, p=0.002, φ=0.314)

Light grey shade indicates no significant statistical differences between variables

Figure 1: Statistically significant differences between visitor expectations with aspects of the interaction, and gender, nationality and number of visits.

Visitor nationality significantly affected the importance given to receiving interesting information about the dolphins (Figure 1). Domestic visitors found this expectation ‘important’ to ‘extremely important’ (83.3%, n=174) in contrast to international visitors (16.7%, n=174). The number of times that respondents had visited the area (first time, between 2-4 times and between 5-10 times) had a significant effect on the importance given to expectations for hav-

ing the opportunity to feed the dolphins (Fisher’s Exact Test, p<0.05) (Table 1). Most first-time visitors (82%, n=161) and a small number of visitors who had come to Tin Can Bay between 2-4 times (18%, n=161) found opportunity to feed the dolphins ‘important’ to ‘extremely important’.

### 3.2 Satisfaction

Satisfaction with aspects of the experience. Most of participants were ‘satisfied’ to ‘extremely satisfied’ with all aspects of the experience. The aspects with highest percentages were how close I could get to the dolphins (92.3%, n=223) and the hygiene practices I followed (85.1%, n=223), followed by the natural behavior of the dolphins (75.5%, n=223), space available for the dolphins (71.2%, n=222), number of people in the water (59%, n=223), and the number of fish I could feed the dolphins (57.8%, n=218). Gender, age, level of education, number of times visited and how long ago had no significant effect on satisfaction. However, visitor nationality did affect satisfaction with the number of people in the water (Table 2). A high proportion of domestic visitors were very satisfied (87%, n=131), in contrast to international visitors (13%, n=131).

Overall satisfaction. Most visitors reported ‘high’ overall satisfaction (60.2%) with the experience, followed by ‘moderate’ satisfaction (33.7%). Gender, age, level of education and nationality did not significantly affect overall satisfaction (Fisher’s Exact Test, p > 0.05).

However, the number of times visited had a significant effect (Figure 2).

Satisfaction with aspects of the experience	Nationality (domestic Australian or international)	Number visits (1st, 2-4 times, 5-10 times)
Number of people in the water	(X <sup>2</sup> (1,n=222) =9.870, p=0.007,φ=0.220)	p>0.05
Overall satisfaction	p>0.05	(X <sup>2</sup> (4,n=164) =13.279, p=0.004,φ=0.273)

Light grey shade indicates no significant statistical differences between variables

Figure 2: Statistically significant differences between satisfaction with aspects of the experience and overall satisfaction with nationality and number of visits, respectively.

### 3.3 Pro-environmental Intended Behaviors

Through participation in the dolphin feeding activity, most visitors ‘agreed’ to ‘strongly agreed’ that ‘from my experience today’, I now feel more strongly about supporting conservation of marine wildlife generally (77.1%, n=223) and supporting conservation of the

marine environment generally (76.2%, n=223). These were followed by supporting conservation of dolphins (74.9%, n=223), helping to conserve the marine environment (72.5%, n=222) and assisting marine conservation programs (59.2%, n=223). Gender, age, level of education, nationality, number of times visited and how long ago had no effect on visitor intentions to support conservation of marine wildlife generally (Fisher’s Exact Test,  $p > 0.05$ ).

### 3.4 Pro-environmental Intended Actions

Respondents felt that their participation in feeding dolphins had between ‘considerable’ and ‘high’ effect on their level of motivation (intention) to: remove beach and ocean litter that could harm wildlife and/or dolphins (68%, n=223), decrease the amount of my personal water pollution (67%, n=223), and assist in the protection of dolphins where possible (64.4%, n=223). In descending order, other motivations affected were to: tell others about the need to conserve oceans and animals (62.3%, n=220), become more involved in marine conservation issues (40.5%, n=222), donate to an environment organization (38.2%, n=220), donate time to assisting with wildlife conservation (37.4%, n=219), and join a wildlife or dolphin conservation organization (26.5%, n=219). Two items had ‘no’ or ‘low’ consequences for motivation to join a wildlife or dolphin conservation organization (35.6%, n=219) and donate time to assist with wildlife conservation (32.4%, n=219).

Visitor gender, age and nationality did not significantly affect intentions to remove beach and ocean litter that could harm wildlife and/or dolphins (Fisher’s Exact test,  $p < 0.05$ ). Although level of education significantly affected intentions to donate to an environment organization. For university graduates (62%, n=69), participation in dolphin feeding had a ‘moderate’ effect on their intention to donate to an environment organization.

Also, for the highly educated visitors (48.7%, n=78), followed by visitors with high school education (28.2%, n=78), participation in the dolphin feeding had a significant effect on the intention to become more involved in marine conservation issues (Figure 3).

Pro-environmental intended actions	Level of education	Number visits
To donate to an environment organization	(X <sup>2</sup> (n=202) =15.472, p=0.015, $\phi$ =0.276)	(X <sup>2</sup> (n=214) =10.361, p=0.017, $\phi$ =0.228)
Become more involved in marine conservation issues	p>0.05	(X <sup>2</sup> (n=202) =11.978, p=0.008, $\phi$ =0.256)
Decrease the amount of my personal water pollution	p>0.05	(X <sup>2</sup> (n=215) =10.578, p=0.020, $\phi$ =0.217)
Tell others about the need to care for our oceans and animals	p>0.05	(X <sup>2</sup> (n=214) =11.408, p=0.012, $\phi$ =0.227)
Light grey shade indicates no significant statistical differences between variables		

Figure 3: Statistically significant differences between pro-environmental intended actions and level of education and number of visits to the dolphin feeding experience.

The number of times (first time, between 2-4 times, between 5-10 times) visitors attended the feeding of dolphins significantly affected four pro-environmental actions intentions (Fisher’s Exact test,  $p < 0.05$ ). It influenced intentions to: (a) become more involved in marine conservation issues (Figure 3), with most respondents being first time visitors (71.6%, n=88), followed by those who had visited between 2-4 times (23.9%, n=88); (b) decrease the amount of personal water pollution (Table 3) for most respondents (67%, n=215), especially first-time visitors (78.5%, n=144); (c) tell others about the need to care for our oceans and animals (Figure 3) for most respondents (62.1%, n=214), with the majority of these being first-time visitors (78.2%, n=133); and (d) donate to an environment organization (Table 3), again, this particularly applied to first time visitors (86.8%, n=76), followed by visitors who had been in the area between 2-4 times (10.5%, n=76).

### 3.5 Knowledge Change

The comparison of self-assessed knowledge pre- and post the feeding experience indicated that most visitors (72.9%, n=217) considered they had ‘low’ knowledge change, followed by those who reported ‘moderate’ (24.0%, n=217) and ‘high’ change (2.8%, n=217). Of those who reported ‘low’ knowledge change, most were the tertiary trained (62.8%, n=145), followed by high school educated respondents (18.6%, n=145) and visitors with technical/TAFE education (10.3%, n=145). Gender, age, nationality, number of times visiting, and last time

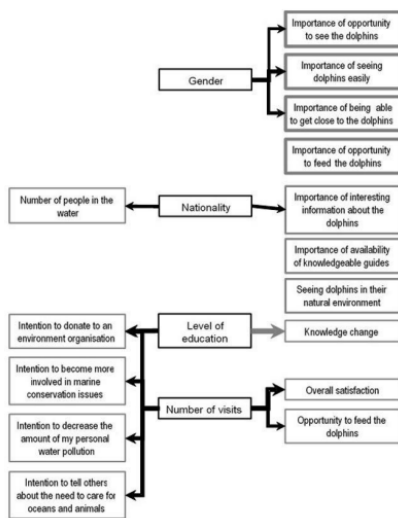


Figure 4: Statistically significant relationships between variables

visited had no significant effect on knowledge change (Fisher’s Exact test,  $p > 0.05$ ). However, level of education did significantly affect knowledge change ( $X^2(n=199) = 19.981, p=0.001, \phi=0.332$ ).

### 3.6 Implications of Statistically Significant Correlations between Variables

Significant correlations (Chi square) between variables suggest several implications for how visitors respond to elements of the wildlife feeding experience (Figure 4). Females had particularly strong expectations. They expected to see the dolphins, see them easily and get close to them; nevertheless, further research is needed to confirm gender differences.

However, that gender differences exist suggests that knowing the type of visitor attending wildlife tourism activities and their expectations may help in designing experiences and/or re-orienting them to fulfil expectations. These findings have implications for the management of wildlife feeding, highlighting the relevancy of adjusting current operations. Domestic visitors had a greater interest in learning as part of their wildlife tourism experience. Learning and education (Espinosa Abascal et al., 2015), (Moscardo and Pearce, 1999), (Ryan and Huyton, 2000), (Ryan and Huyton, 2002), have been investigated as a motive for visiting an attraction. Which aspects of learning the dolphin-feeder domestic visitor is interested in (e.g. personal growth) and where their motivations for learning lie (e.g. desires or beliefs) would be valuable to clarify.

Feeding the dolphins was more important for first-time feeders than for those who had visited previously. First-time respondents were more likely to gain higher levels of satisfaction from their dolphin-feeding experience than those who had participated previously. That is, repeat visitors appeared to be more discriminating when evaluating their satisfaction of their visit. The first exposure to dolphin feeding also appears to be the more influential in stimulating intentions to act pro-environmentally, and declines on subsequent visits. This has implications for conservation because it shows that it would be useful to increase engagement with first time visitors to motivate them to return to the wildlife experience. When visitors are in situ for the first time, they are open to suggestions to join a conservation organization and act on the experience. Post visit communication with visitors might reinforce messages and precipitate intentions to join a conservation organization; however, this needs to be explored. Additionally, a higher rate of visitor return would have positive economic implications. It can bring extra revenue to the local area; however, the locality’s carrying capacity needs to be considered.

While the dolphin-feeding experience did motivate visitors to act with some immediacy to support marine conservation, it is not known whether the experience motivated a long-term commitment. The dolphin-feeding experience also motivated intentions. Higher educated visitors were more inclined to donate to environmental organizations. This reflects availability of discretionary expenditure, but this was not explored in this study. The higher educated also were less likely to report a change in knowledge. Thus, information and interpretation provided during the feeding was perceived not to add to the knowledge of visitors. This suggests that education and interpretation elements of the experience were ineffective; alternatively, visitors may have been already highly informed about dolphins. The former explanation for this result is more probable. Respondents were willing to support conservation generally; however, socio-demographic characteristics appear not to be associated with intentions to behave to benefit the environment. Other factors may be involved.

## 4 DISCUSSION

Visitor characteristics (e.g. gender, nationality and number of visits to the site) appear to be related to specific factors important for the visitors. Level of education and number of visits influenced motivation to adopt specific pro-conservation actions. There was



an interplay between gender differences and expectations of being close to the dolphins and sighting them, which was more important to a higher proportion of females than males. This concurs with the literature since attitudes (precursors of expectations) toward animals have been reported as being valued differently by males and females (Kellert and Berry, 1987). While females tend to perceive animals from the affective domain, males value animals for more practical and recreational reasons (Kellert and Berry, 1987). Nevertheless, all visitors tended to value seeing and being close to the dolphins. Gender differences were less prominent with respect to outcomes of the dolphin feeding experience (e.g. knowledge change, satisfaction, pro-conservation behaviors and actions). This contrasts with previous research where gender was a strong predictor of behavioral intentions and changes in environmental knowledge (Kellert and Berry, 1987), (Stern et al., 1993).

A relationship was found, although weak, between visitor nationality and expectations of acquiring information related to dolphins. This aligns with a New Zealand study (Amante-Helweg, 1996) that found eco-tourists attending a swimming-with-dolphins program were interested in acquiring dolphin related information. The New Zealand study concluded that visitor typology tends to change over time, even at wildlife tourist attractions (Amante-Helweg, 1996), (Duffus et al., 1990). In the beginning, visitors are explorers and specialized (e.g. birdwatchers). With time, a combination of both experts and generalists are attracted, and finally generalists dominate (Duffus et al., 1990). The results in this reported study showed a greater proportion of domestic (Australian) dolphin feeder visitors (81%) who had higher education (52%), like whale-watching tourists in West Scotland (63%) (Parsons et al., 2003) and swimming-with dolphins' visitors in New Zealand (40.9%) (Lück, 2003). They expected to improve their knowledge about cetaceans through participation in the experience. These results emphasize the importance of developing structured wildlife programs that realistically contribute to visitor knowledge given their inherent interest when attending wildlife tourism experiences. Should the animals fail to show up for a short or permanent period, significant consequences are likely to be experienced by the tourism operator and the local community. Wildlife tourism experiences, when occurring in natural settings, cannot guarantee the presence of fauna. Thus, when designing wildlife experiences, managers and practitioners would be prudent to consider a wide range of educational resources and not emphasize and encourage appreciation of only one

species and/or a specific number of individuals. A successful example of this design is Tangalooma in Moreton Island, Australia where the feeding experience is strongly promoted; however, there are alternatives, such as visiting or participating in activities at the education center (personal observation). Despite the positive predisposition of most Tin Can Bay dolphin feeders to pro-environmental behaviors, further exploration of this relationship was not possible. It would have involved a longitudinal study of visitors' actual behavior after they have left the site. However, the predisposition suggests managers and operators might consider providing in situ opportunities to join conservation organizations, initiatives, or campaigns or to participate in local, regional and/or national activities associated with conservation organizations. This could be done by providing information on how to be active in conserving and/or protecting wildlife and its habitats or providing the opportunity on-site to join these organizations.

#### 4.1 Highest Scoring for Individual Variables

This study showed that a high proportion of visitors expected and considered as 'important' to 'extremely important' the sighting of the dolphins (92%) in their natural environment (91%) and being close to them (87%), ahead of being educated (79%) and feeding them (74%). These results reflect the affinity that humans have towards nature, despite it not being clear if this is an innate and/or learned response (Wilson, 1984), (Knopf, 1987), (Kaplan, 1995). They also reflect a general response to attractive and/or charismatic species (Arango et al., 2007) such as dolphins (Bentrupperbaumer, 2005) and, in this case, the qualities of *S. sahalensis*. This attraction to observe has been called aesthetic appeal (Kellert, 1996), an anthropomorphic character attributed to some vertebrates (Amante-Helweg, 1996), (Bentrupperbaumer, 2005), as well as species rareness (Reynolds and Braithwaite, 2001). Regardless of why people have an affinity towards some wildlife species, efforts to improve understanding of the species seems wise in terms of sustaining the wildlife tourism experience, because without visitor support, the viability of the activity in the long term is unlikely (Moscardo and Pearce, 1999). This study shows that sighting the dolphins tended to be more important, for most visitors, than the feeding. This suggests opportunities exist to develop alternatives that can shift visitor attention away from the feeding component, which is associated with ethical and conservation concerns. The results also suggest how a supplementary perspective

and tourism product might buffer community impacts should the dolphins depart the setting. Moreover, the community of Tin Can Bay, while not economically dependent on dolphin feeding, is vulnerable to its loss due to the input that this activity brings to employment and financially for a community composed by retirees (Arango-Estevéz, 2018).

Given most visitors (60%) reported they were 'very' or 'extremely' satisfied with the dolphin feeding experience, it seems to have met expectations; however, there is still room for improvement. This result contrasts with an earlier study of dolphin feeding in Tin Can Bay (Mayes et al., 2004), which found that 90 per cent of visitors reported being 'very' and 'extremely' satisfied. The drop in the percentage may be associated with differences in the time spent close to the dolphins and/or the physical distance between visitors and dolphins. It might also be related to the level of education<sup>1</sup>, since a higher proportion (approximately 58%) of visitors had university level education in comparison to a lower proportion (about 40%) of highly educated visitors in the previous study. Another possibility for the difference may be related to the presence of more generalist visitors, who, while more educated, have higher expectations. This result gives insight to the evolution status of the site, which may be reaching a final stage of development, where visitors become generalists and more demanding (Duffus et al., 1990).

A substantial majority of visitors indicated 'high' satisfaction, especially with closeness to the dolphins, but also with the dolphins' natural behavior and hygiene practices followed. Expectations are indicators of quality perception of services, products and experiences that are developed after a visitor is motivated with a holiday scenario or a wildlife experience (Gnoth, 1997). Therefore, it seems that closeness to the dolphins and on-site procedures followed are relevant motivators for dolphin feeding participation and therefore should be considered in terms of management of wildlife tourism experiences. While closeness to the dolphins is facilitated by feeding, there are two elements to closeness in the dolphin-feeding experience in Tin Can Bay. The first relates to when visitors are close to the dolphins over an extended period (pre-feeding) but without feeding them; the second occurs during the short feeding period. This finding was not explored in this study, but it would be useful to know whether satisfaction with closeness to the dolphins is more associated with the first moment, the second, or a combination. Understanding the influence of these elements of closeness would inform management of the contentious issue of the public hand-feeding dolphins.

Despite most visitors being highly satisfied with being close to the dolphins, this was not the case for satisfaction with the time spent with the dolphins and the number of fishes used in feeding; only about half of the visitors felt highly satisfied. A limitation here is that we cannot know whether this drop-in percentage of visitors with high satisfaction, due to the amount of time spent with the dolphins, occurred because they only fed the dolphins and may have not spent time with them in the pre-feeding moment. The other drop in percentage of visitors highly satisfied was due to the amount of fishes given to the dolphins. This result suggests a lack of structure (Newsome and Rodger, 2008) and understanding about the practice of feeding dolphins. As suggested previously (Newsome and Rodger, 2008), (O'Neill et al., 2004), best practices and on-site interpretation can help to make visitors more aware, responsible and knowledgeable about the risks versus benefits of hand-feeding wildlife. With improvement in education (interpretation messages) and appropriate management (e.g. re-structure of crowds and location) of dolphin feeding in Tin Can Bay, an improvement in visitor satisfaction might be expected in a wider variety of aspects of the feeding experience.

Visitors were satisfied with hygiene practices. This confirms that explained management procedures, and their benefits, leads to support for the practices (Kessler and Harcourt, 2010). In previous research on swimming-with-dolphins, despite a mismatch between visitors' initial elevated expectations of the activity, and a posteriori application of guidelines within a Code of Practice, the management procedures were supported by tourists (O'Neill et al., 2004). In the present study, it appears that restructure of the current operation in Tin Can Bay to a best practice standard is possible without affecting visitor satisfaction, whether explanation is provided or not. Such changes may enhance benefits for visitors and reduce potential detrimental impacts on *S. sahulensis* (although there is no current empirical evidence that the feeding has negative impacts on the species and its population in the Great Sandy Strait). However, some tourism operators are reluctant to implement changes due to fears associated with visitor reaction to new rules and the possibility of a reduction in their attendance to the wildlife experiences (cf. (Moscardo and Saltzer, 2004)). The results suggest that these fears may be unfounded if effective interpretation is provided. Thus, conservation agencies or private organizations managing wildlife interaction experiences should develop strategies to show evidence to tourism operators and visitors of the benefits for themselves and the wildlife when new man-

agement practices are implemented. Most visitors reported low knowledge acquired after participation in the dolphin feeding and, coincidentally, most were highly educated. This suggests that either interpretation messages delivered in Tin Can Bay do not meet the expectations of the well-educated clientele or that visitors are specialized and knowledgeable in subjects related to cetaceans and specifically dolphins. The findings indicate that the interpretation messages delivered in situ are basic and not to the standard expected by educated visitors. This suggests that on-site interpretation can be improved. However, some caution is advisable, because participants self-reported knowledge change, rather than an assessment of actual knowledge change. In addition, whether the feeding experience is reaching a final stage of development where generalists, although highly educated, are dominating the clientele is worth further investigation (Amante-Helweg, 1996), (cf. (Duffus et al., 1990)). This is likely to be relevant in creating dolphin feeder profiles that would inform development of best practice guidelines that focus on interpretation and education to targeted audiences. This could then improve visitor satisfaction by prioritizing enjoyment from the whole experience ahead of feeding as entertainment: the emphasis being placed on fostering respect, appreciation and ethical values relating to wildlife and nature in general (see (Newsome and Rodger, 2008)), (Garrod et al., 2007).

In the study previously conducted in Tin Can Bay, 47 per cent of visitors reported, post experience, that their knowledge about dolphins had 'increased a lot' ((Mayes et al., 2004), p.46); whereas in the present study, only 2.8 per cent reported high knowledge change. Divergent results may be related to education levels and improved access to dolphin-related information through the internet, social networks (e.g. Facebook, Twitter) and television<sup>2</sup>. However, these results indicate that wildlife tourism participants are seeking value-added learning, but opportunities are missing due to the lack and delay of implementation of best practices that emphasize education, satisfaction and safety. Visitors reported intentions and motivation to practice pro conservation behavior after participation in dolphin feeding. They 'agreed' to 'strongly agreed' to support conservation of marine wildlife (77%) and their environment (76%) and specifically in conservation of dolphins (75%), and helping and assisting in conserving the marine environment and marine conservation programs (59%). Intentions to undertake specific actions were also very positive. However, most visitors were more motivated to undertake actions that required less effort (e.g. removing potentially harmful litter for wildlife and/or

dolphins (68%) and decreasing personal amount of water pollution (67%). These results match the findings of (Mayes et al., 2004)(Orams, 1997), where actions requiring more effort had a lower proportion of visitors intending act in this way (e.g. becoming more involved in environmental issues and donating money to environmental organizations).

## 4.2 Outcomes of the Dolphin Feeding Experience and Interactions

While information and interpretation presented in Tin Can Bay, at the time of this study, was limited and unstructured (personal observation), it seems to have had an influence on some visitor outcomes (overall satisfaction and intention to collect dolphin-harming beach and ocean litter). As found by others, the dolphin-feeding tourism experience encouraged visitors to undertake specific actions beneficial to the environment and the species (cf. (Orams, 1997)). In the context of an Interactional Theory approach, dolphin-feeding tourism in Tin Can Bay does evoke short term and in situ positive outcomes in visitors (e.g. overall satisfaction, self-perceived confidence in intentions to adopt pro-conservation behaviors, and specific intentions such as becoming active in conservation of wildlife and their environment). Current management of dolphin feeding in Tin Can Bay, including operation design and information and interpretation delivery, appears to have limited influence on motivating active roles in conservation, which is likely to be diluted after visitors leave the setting. Best practice tourism wildlife interactions demand that visitors take home a strong conservation message beyond what can be engendered, haphazardly, by the emotion-evoking feelings of enjoyment of the experience.

## 5 CONCLUSIONS

Visitors' socio-demographic characteristics (e.g. gender, nationality, number of visits to the site), with direct exposure to, and interaction with dolphins in natural settings, were shown to influence visitor expectations of the experience. Level of education, number of visits and expectations of the experience can influence outcomes from the experience (e.g. knowledge change, overall satisfaction, pro-environmental behaviors and specific pro-environmental actions). Gender influenced expectations of seeing the dolphins, seeing them easily and being close to them. Nationality influenced expectations of receiving information about the dolphins. More educated and first-time visitors recognized the knowledge acquired dur-

ing dolphin feeding was limited. However, increased knowledge still influenced intentions to be more active donors to environmental organizations. Number of visits to the dolphin feeding activity, especially for first-time visitors, influenced intentions to be more pro-active towards the environment (e.g. donating money, giving time) including making changes at personal levels (e.g. decreasing personal water pollution). The first-time visit also seems to be an important stimulus influencing overall satisfaction in visitors. This study showed that satisfaction with closeness to the dolphins is a desired outcome of the dolphin feeding experience and should be considered in terms of best practice and better management of the experience and in re-thinking existing experience structure and design. If wildlife experiences are not well structured and within a context of a code of best practice, and guidance is not given in situ in how to behave after participation, it is likely that the conservation benefits of the experience will be lost. Experiences should be orientated to deliver adequate closeness to the wildlife and effective interpretation, which, in turn, can have strong positive influence on visitor satisfaction and enjoyment and in the long term, can bring conservation benefits for the wildlife and associated environment.

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