The Impact of the Terrestrial Basking Event of Hawaiian Green Sea Turtles on Visitors at Ho'okipa, Maui

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Introduction

Marine resources are central to many tourism destinations, including the United States—the second most visited country in the world, generating 85% of its tourist revenue from its marine environments (Clein-Sain, B., Knecht, R., & Foster, N., 1999). Tourists to the U.S. voted Maui as the best island for the 23rd consecutive year (Maui Now, 2016). Its beaches are special for green sea turtles, which emerge from the ocean to bask on the sand at Ho'okipa Beach Park. Terrestrial basking is behaviour unique to specific populations of green sea turtles located in Hawai'i, the Galapagos, and Western Australia (Van Houtan, K., Halley, J., & Marks, W. (2015). The daily event in Maui, draws approximately 500 visitors (Bernard, H., personal communication, November 26, 2016). On the beach, a local non-profit, Hawai'i Wildlife Fund, uses interpretation as a visitor management strategy to protect the turtles listed as 'threatened' under the Endangered Species Act (NOAA Fisheries. (2016).

The goal of this research is to examine the impact of the terrestrial basking event of Hawaiian green sea turtles on visitors at Ho'okipa, Maui. The objective is to identify if visitors transition into more responsible marine tourists through their interaction with the turtles. In partnership with the Hawai'i Wildlife Fund, qualitative and quantitative survey results will profile visitor satisfaction, learning, attitudes, and behaviour changes adapted from Orams' model of marine-tourist interaction (Orams, M., 1995). It is also desired that the results from this survey will help improve marine tourism management at the green sea turtle basking site.

Literature Review

Literature important for this study can be organized around three themes: natural events, Orams' marine tourism framework (1995), and Hawaiian green sea turtle research.

Natural Events

Natural events are defined as "events not organized by man that occur in a specific place and at a specific time, lasting from a few seconds to a few weeks" (Kruger, Saayman & Hull, forthcoming), and can be categorized into earth, sky, animal, bird, water, and plant events (Kruger et al., 2013). Kruger et al. (2013) conducted research to profile and the motives of natural event visitors at the 'Salute to the Sockeye' salmon run in British Columbia and evaluate what constituted a memorable salmon run viewing experience. An additional study on wildflower tourism by Kruger, M., Viljoen, A. & Saayman, M. (2013), sought to recognize visitor motivations of travel to national parks during wildflower flowering season and the factors visitors consider for a memorable experience. While the objectives were accomplished in both projects, there was no discussion of whether viewing the salmon, or wildflower event, created a greater sense of environmental responsibility in tourists.

In reviewing the literature on natural events, it is determined there is no present study addressing the basking event of the threatened green sea turtles and its impact on visitors.

Orams' Framework

Orams offers a conceptual framework for the management of marine tourism (1995). This is a framework for testing the efficacy of various tourism management strategies to move visitors toward stewardship of the environment (1999). One of the management

strategies is interpretation: "an educational activity which aims to reveal meanings and relationships through the use of original objects, by firsthand experience, and by illustrative media, rather than simply to communicate factual information" (Tilden, 1957, p. 8). Orams considered two groups of tourist-dolphin interactions, in Australia, with one group receiving interpretation, and the other not. The group that received interpretation became more responsible in their behaviour, while the other had only good intentions. Oram's model was adapted from the work of Forstell and Kaufman (1990) who tested whale watching interpretation programs in Hawai'i to assess their impact on visitor appreciation.

In 2008, Zeppel applied Orams' framework to 18 marine wildlife experiences and found positive tourist behaviour changes occurred when emotional empathy and learning were combined. However, the experiences included dolphins, whales, and nesting (not basking) sea turtles, and took place in Australia. No study has adapted Orams' framework to study the basking Hawaiian green sea turtles at Ho'okipa, Maui.

Hawaiian Green Sea Turtle Research

The literature on Hawaiian green sea turtles has looked at the impacts of tourists on sea turtles (Medaas, 2014). Hawthorne (in press) has examined sea turtle basking behaviours due to sea surface temperatures in Hawai'i. Van Houtan et al. (2015) completed a similar sea surface temperature/basking study on O'ahu. Also, Balazs, a career researcher with the National Oceanic and Atmospheric Administration (NOAA), has produced 178 publications on turtles. These include the basking behaviours of sea turtles on the Northwestern Hawaiian Islands (1982), biological studies (1979), migrations (1976), and issues of disease (2005).

In summary, the above studies address natural events, marine tourism management, and sea turtle research in Hawai'i. However, none explore the impact of the terrestrial

basking event of Hawaiian green sea turtles on visitors, and whether viewing this event positively impacts learning, attitudes, and behaviors of environmental responsibility, the goal of my research.

Methodology

In 1995, Orams developed a marine tourism evaluation tool to assess interpretation practices and their impacts on visitors, by measuring their levels of satisfaction, learning, attitudes, and behaviors. Successful management shifts the marine tourist from an enjoyable experience, towards one which changes their behaviour or lifestyle. Consequently, this change in the visitor promotes a positive manifestation in the environment, by minimizing disturbances, improving habitats, and contributing to the longevity of the environment's health and well-being (Orams, M., 1999). As noted, such assessment has yet to be explored in the context of sea turtle site management, at Ho'okipa Beach Park, Maui.

Survey Design

In collaboration with Hawai'i Wildlife Fund, quantitative and qualitative data was gathered using a random intercept survey with indicators adapted from Orams' marine tourism model (1995). The survey design was segmented into five categories which included: Visitor Satisfaction, Visitor Learning, Visitor Attitudes, Visitor Behaviour, and Socio-demographic Information. Questions were linked to visitor experiences at the site and their perceived outcomes regarding the above categories. This survey remained anonymous and an incentive to complete the survey was included for the visitor. An entry form towards a customized box of gourmet shortbread cookies from the Honolulu Cookie Company, was presented to the visitor upon completion of the survey. The entry form asked for the participant's name, signature, date, and email. However, the form was separate from the survey to maintain the integrity of participant anonymity.

Five questions were selected and adapted from the survey of "A Motivation-Based Typology For Natural Event Viewers", by Kruger et al (2013). Four of the five questions were part of a Likert Scale measuring the level of importance in achieving a satisfying experience when viewing the basking green sea turtles at Ho'okipa. Those questions included: The proximity of the turtles, easy access to the beach/basking site, the basking turtles are a memorable experience, and a photographic opportunity. The fifth question was a qualitative enquiry, which asked 'which three words best describe the emotions you feel from witnessing the green sea turtles bask?' (Appendix A).

Data Collection

The student researcher's objective was to collect 400 surveys, in person, at Ho'okipa Beach, using a clipboard and paper delivery method. The survey sample size of 400 was determined by utilizing the Research Advisors Required Sample Size chart (Research Advisors, 2006). The chart shows that one who desires to generate a 95% confidence level with a 5% margin of error for a population as large as 250,000, would need a sample size of 384 individuals. In 2016, 76,094 tourists visited Ho'okipa Beach Park (Hawthorne, J., personal communication, October 5, 2017). Therefore, a round integer of 400 was selected as the sample size.

A total of 555 surveys were collected, however, 12 were removed as three surveys were missed and nine others were completed by Maui residents, making them ineligible. Consequently, the total number of surveys collected for analysis was 543.

Data collection occurred over 31 days in Maui, from July 1 to July 31, 2017. The participants surveyed were visitors to Ho'okipa Beach Park and the Hawaiian Islands. Hawai'i State residents and Hawaiians were excluded, along with minors, those under 18 years of age. Surveys were collected over four hours, each research day. The four-hour period was altered daily, to randomize the process. Visitors chosen for this study

were due to the increased numbers of tourists flocking to Ho'okipa Beach Park, causing concern toward the basking green sea turtles and the carrying capacity of basking site.

Survey Analysis

A content analysis was performed on all qualitative explorations to identify emergent themes, from which data could be entered into SPSS and analyzed with the quantitative investigations. Frequency analysis was applied to summarize the results of all qualitative and quantitative questions.

Ethics

Ethical approval for this study, was permitted by the Thompson Rivers University Research Ethics Board (TRUREB). An online ethics application was completed and reviewed by Faculty Supervisors Dr. John S. Hull and Dr. Kellee Caton. A letter of support from Hawai'i Wildlife Fund and a copy of the written survey were attached to the application and submitted to the TRUREB for review. Revisions to the application and survey were requested by the TRUREB. Once completed, ethical approval for this research was established on June 6th, 2017. (Appendix B)

Results

Results from this study were arranged according to the categories that were measured. The categories included: socio-demographic information, visitor satisfaction, learning, visitor attitudes, and visitor behaviours.

Socio-Demographic Information

Of 543 respondents, 56.7% = female, 34.6% = male. 0.2% = gender unspecified, while 7.9% did not answer the gender question. An invalid response of 0.6% is shown, due to surveys completed by respondents who circled more then one gender on the survey.

Table 1: Gender

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	308	56.7	56.7	91.3
	Male	188	34.6	34.6	34.6
	Did Not Answer	43	7.9	7.9	99.4
	Invalid	3	.6	.6	100.0
	Unspecified	1	.2	.2	91.5
	Total	543	100.0	100.0	

Visitor participants resided in the following countries: U.S. = 62.8%, Canada = 15.3% European Union = 8.1%, Australia = 2.8%, New Zealand = 1.3%, South Korea = 0.4%, Mexico and Brazil = 0.2%. Participants that did not answer this question = 8.1%.

Table 2: What country do you reside in?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	USA	341	62.8	62.8	78.1
	Canada	83	15.3	15.3	15.3
	Did not answer	44	8.1	8.1	95.2
	Europe	44	8.1	8.1	86.2
	Australia	15	2.8	2.8	98.0
	New Zealand	7	1.3	1.3	99.3
	Asia	5	.9	.9	87.1
	South Korea	2	.4	.4	99.6
	Brazil	1	.2	.2	100.0
	Mexico	1	.2	.2	99.8

Visitors born in the 1970s and 1960s made up the largest demographic at 24.9% and 22.3%, respectively. Combined, these participants accounted for 47.2% of the survey responses. The third largest group were those born in the 1980s = 17.3%. Both visitors from the age groups of the 1950s and 1990s = 9.9%. The 1940s and 1930s represented 4.6% and 9.2% did not respond.

Table 3: Year born

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1970s	135	24.9	24.9	61.7
	1960s	121	22.3	22.3	36.8
	1980s	94	17.3	17.3	79.0
	1990s	54	9.9	9.9	89.0
	Did not answer	50	9.2	9.2	98.2
	1950s	54	9.9	9.9	14.5
	1940s	23	4.2	4.2	4.6
	Invalid Response	10	1.8	1.8	100.0
	1930s	2	.4	.4	.4
	Total	543	100.0	100.0	

Visitor Satisfaction Information

84.9% of visitors witnessed the basking green sea turtle event at Ho'okipa Beach Park for the first time, while 14.4% stated it was not their first time. 0.7% did not respond.

Table 4: First time witnessing the basking sea turtles at Ho'okipa?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	461	84.9	84.9	84.9
	No	78	14.4	14.4	99.3
	Did Not Answer	4	.7	.7	100.0
	Total	543	100.0	100.0	

1.8% of visitors viewed the turtles 0 times during previous trips, but more than once during their current trip. 5.0% of visitors reported viewing the basking green sea turtles once on a previous trip, 1.7% viewed the turtles twice during a previous trip (or trips).

0.6% viewed the turtles three times during previous trips. Whereas, 1.6% of visitors viewed the turtles from 3 to 6 times and 1.2% viewed the turtles 10 to 50 times. 3.3% did not answer and 0.7% of respondents' answers were invalid due to the legibility of their response.

Table 5: How many times did you witness the turtles in previous trips?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	0	10	1.8	1.8	1.8
	1	27	5.0	5.0	6.8
	2	9	1.7	1.7	8.5
	3	3	.6	.6	9.0
	4	1	.2	.2	9.2
	5	2	.4	.4	9.6
	6	2	.4	.4	9.9
	10	3	.6	.6	10.5
	11	1	.2	.2	10.7
	30	1	.2	.2	10.9
	50	1	.2	.2	11.0
	Answered Yes to 1A so N/A	461	84.9	84.9	99.3
	Did not answer	18	3.3	3.3	14.4
	Invalid Answer	4	.7	.7	100.0
	Total	543	100.0	100.0	

3.9% of tourists viewed the basking green sea turtles as solo travellers, 29.3% travelled in pairs, 38.7% viewed as a group of three to four individuals. 17.9% was comprised of a group of 5 to 7 people, while 4.8% were a group of 8 to 10 people. 2.0% of visitors viewed as a group of 11 to 13 people, and 1.5% were groups of 14+ people. 2.0% of respondents did not respond.

Table 6: Number of people viewing the turtles including yourself

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Solo Travelers	21	3.9	3.9	3.9
	Two people	159	29.3	29.3	33.1
	Three to four people	210	38.7	38.7	71.8
	Five to seven people	97	17.9	17.9	89.7
	Eight to ten people	26	4.8	4.8	94.5
	Eleven to thirteen people	11	2.0	2.0	96.5
	14 or more people	8	1.5	1.5	98.0
	Did not answer	11	2.0	2.0	100.0
	Total	543	100.0	100.0	

Given the number of tourists gathering daily to view the basking green sea turtles at Ho'okipa Beach Park, a question was asked as to how visitors found out about the turtles. 42.9% found out by word of mouth. Friends, other tourists, taxi drivers, rental car agencies, and service staff from Mama's Fish House restaurant were the most popularly listed. 19.3% of visitors showed up at Ho'okipa Beach to watch the windsurfers, participate in beach activities, or stopped at the lookout to view the waves and discovered the sea turtles basking by chance. 11.8% of visitors found out about the turtles via social media or websites. Facebook, TripAdvisor, Expedia, and Yelp were the most mentioned. 9.2% of visitors were told about the sea turtles by tours they had taken. Most noted were Temptation Tours, Dynamic Tours, and Rappel Maui. 7.0% found out via Hotels with the Aloha Surf Hostel, Wailea Beach Marriott Resort & Spa, the Sheraton Maui Resort & Spa, and the Westin Maui Resort & Spa, listed often. 4.6% of participants answered 'Other', which included a travel book titled Maui Revealed, a mobile app called the Shaka Guide that offered driving tour descriptions as visitors drove certain routes around the island, and previous trip experiences. 3.3% of the answers were found invalid, as respondents circled two answers to the question. 1.1% found out about the sea turtles via an Visitor Information Centre. 0.7% of the population surveyed did not answer the question.

Table 7: How did you find out about the basking sea turtles at Ho'okipa?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	Word of Mouth	233	42.9	42.9	42.9
	Showed up at beach	105	19.3	19.3	100.0
	Social Media/Website	64	11.8	11.8	72.0
	Tour Guide	50	9.2	9.2	52.1
	Hotel/B&B	38	7.0	7.0	59.1
	Other	25	4.6	4.6	76.6
	Invalid Double Answers	18	3.3	3.3	79.9
	Visitor Information Centre	6	1.1	1.1	60.2
	Did not answer	4	.7	.7	80.7

The following 12 questions were arranged in a Likert Scale asking visitors to rate their importance in achieving a satisfying experience while viewing the basking green sea turtles. The rating scale was as follows: Very important = 5, Important = 4, Neutral =3, Unimportant =2, Very unimportant =1

Table 8: How important are the following in achieving a satisfying experience when viewing the basking sea turtles?

	N	Mean
The basking turtles are a memorable experience	542	4.79
The basking event is natural and authentic	540	4.77
Affection/Empathy towards the sea turtles	540	4.72
Viewing an animal, I do not normally see	542	4.62
The proximity of turtles	541	4.60
Viewing an animal important to Hawaiian Culture	542	4.53
Seeing an animal on the endangered species list	541	4.38
Easy access to the beach	542	4.33
Feeling a sense of place viewing the basking turtles	541	4.27
A photo opportunity	542	4.21
Confidence the turtles would be basking	538	3.93
Number of turtles at the basking site	542	3.88
Valid N (listwise)	524	

The top three most important aspects for visitors were that viewing the turtles would be a memorable experienced (N = 4.79), which was natural and authentic (N = 4.77), and had expressed feelings of affection or empathy towards them (N = 4.72).

Viewing an animal that tourists do not normally see was very important (N = 4.62), as was the proximity of the turtles (N = 4.60). Viewing an animal important to Hawaiian culture, was deemed to be in between important and very important (N = 4.53).

Viewing an animal placed on the Endangered Species list, was listed as important (N = 4.38) and easy access to the beach and basking site where the turtles were found, was also regarded as important (N = 4.33) to a satisfactory experience.

Feeling a sense of place and having a photographic opportunity of the turtles was important to respondents, but less so at N = 4.27 and N = 4.21 respectively.

Visitors felt more neutral in their importance, about having confidence the sea turtles would be basking (N = 3.93) and less concerned about the numbers of sea turtles that may be basking (N = 3.88).

Survey participants were asked which three words best described the emotions they felt from witnessing the green sea turtles bask. 1519 responses were placed into a word cloud generator called Tag Crowd (N.D.), which grouped similar words together and computed the frequency of the words used by respondents. The top three emotions expressed by participants are**:** Happy (144), Amazing (141), and Peaceful (137).

Visitor Learning Information

The questions in this category were to assess the interpretation given by Hawai'i Wildlife Fund and what information visitors may have learned, while viewing the basking event. When asked if visitors received information about the basking sea turtles from a Hawai'i Wildlife Fund representative, participants could answer 'Yes' or 'No'.

- 56.4% of respondents answered 'Yes'
- 37.8% of respondents answered 'No'
- 5.3% did not answer

Table 9: Received information from HWF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Yes	306	56.4	56.7	56.7
	No	205	37.8	38.0	94.6
	Did not answer	29	5.3	5.4	100.0
	Total	540	99.4	100.0	
Missing	System	3	.6		
Total		543	100.0		

The question 'What are two facts you learned about the basking green sea turtles', has been dropped from this analysis. A total of 132 out of 543 survey participants did not answer the question, which accounts for 24.3% of the total number of surveys. 35 participants outside of this number answered the question partially, by providing one out of two facts. Not always could there be a volunteer present on the beach every day. During these periods the student researcher surveyed participants and answered visitor questions.

When asked if viewing the basking sea turtles caused visitors to care more about:

A) Sea Turtle Conservation or B) Their Environmental Choices

Table 10: Viewing the basking sea turtles causes me to care more about sea turtle conservation

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	Agree	453	83.4	83.4	83.4
	Undecided	56	10.3	10.3	93.7
	Did not answer	26	4.8	4.8	100.0
	Disagree	8	1.5	1.5	95.2

83.4% of visitors agreed the experience caused them to care more about sea turtle conservation, 10.3% were undecided, 4.8% of respondents did not answer, and 1.5% disagreed the viewing experience would cause them to care more about sea turtle conservation.

78.3% of respondents felt they cared more about their environmental choices, 14.2% were undecided, 4.8% surveyed did not answer, and 2.4% disagreed it would cause them to care more about their environmental choices.

Table 11: Viewing the basking sea turtles makes me care more about my environmental choices

		Frequency	Percent	Valid Percent	Cumulative Percent
	Total	541	99.6	100.0	
	Agree	425	78.3	78.6	78.6
	Undecided	77	14.2	14.2	92.8
	Did not answer	26	4.8	4.8	100.0
	Disagree	13	2.4	2.4	95.2
Missing	System	2	.4		
Total		543	100.0		

When asked whether visitors possessed any knowledge of responsible sea turtle viewing guidelines, 56.5% answered 'No', while 39.6% answered 'Yes'. 3.3% of those surveyed did not answer and 0.2% of answers were invalid due to both choices being circled.

Table 12: Prior knowledge of responsible sea turtle viewing guidelines

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	No	307	56.5	56.5	96.1
	Yes	215	39.6	39.6	39.6
	Did not answer	18	3.3	3.3	99.4
	6	1	.2	.2	100.0
	Invalid Response	1	.2	.2	99.6
	5	1	.2	.2	99.8

Visitor Attitudes Information

A second set of 12 questions were arranged in a Likert Scale asking visitors to indicate their responses to the following questions. The rating scale was as follows: Strongly Agree = 5, Agree = 4, Undecided =3, Disagree =2, Strongly Disagree =1

Table 13: Visitor Attitudes

	N	Mean
The basking sea turtles should be minimally disturbed	541	4.92
Sea turtles/wildlife are much more than tourism objects	542	4.90
Protecting the sea turtles protects their significance in Hawaiian culture	542	4.85
Sustainable viewing depends on visitor and site management	543	4.80
I benefit from viewing the basking sea turtles	543	4.72
It is my responsibility to participate in ethical wildlife encounters	541	4.63
The number of people in the water at ocean entry concerns me	543	4.44
I believe there are actions I can take to help the turtles	542	4.35
I would view from a platform to make less impacts on the sea turtles	543	4.08
I would support a park visitor fee to assist with site and visitor management	543	4.07
I would not support a park visitor fee but would donate to HWF instead	543	3.84
The number of people around the basking sea turtles concerns me	542	3.83
Valid N (listwise)	535	

Surveyed respondents agreed most strongly that the basking sea turtles should be minimally disturbed (N = 4.92), are much more than tourism objects (N = 4.90), and that protecting them protects their significance in Hawaiian culture (N = 4.85). In between the values of strongly agree to agree, participants felt that sustainable viewing depends upon visitor and site management (N = 4.80), that they benefit from viewing the basking sea turtles (N = 4.72), and that the responsibility falls on them to participate in ethical wildlife encounters (N = 4.63). Visitors agreed they felt concerned about the number of people in the water at the ocean's entry (N = 4.44) and there were actions they could take that would benefit the sea turtles (N = 4.35). They agreed that they would be willing to view the basking sea turtles from a platform to make less impacts on them (N

= 4.08), and would support paying a modest visitor park fee to support visitor and basking site management (N = 4.07). In between the values of undecided and agreement, visitors replied that they would not support a visitor park, fee but would donate to Hawai'i Wildlife Fund to support them with visitor and site management (N = 3.84) and concerned about the number of people around the turtles (N = 3.83).

Surveyed participants were asked what being a "responsible tourist" meant to them. The two top comments included respecting the environment/wildlife and habitats (27.4%) and not disturbing the turtles/wildlife by giving them space (24.3%). Following rules/regulations, obeying signage, and adhering to cultural norms were the third most common statements (16.4%) and many participants commented one should take photographs only, leaving no footprints/impacts behind and leaving areas better than they found it (14.7%). Management of garbage/not littering (1.7%) and making better environmental choices (1.1%) were also represented. 14.2% of participants did not answer the question.

Table 14: What does being a responsible tourist mean to you?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	Respect environment/wildlife and habitats	149	27.4	27.4	27.4
	Do not disturb turtles/wildlife and give them space	132	24.3	24.3	66.5
	Adhere to rules/signage and cultural norms	89	16.4	16.4	82.9
	Leave no footprints	80	14.7	14.7	42.2
	Did not answer	77	14.2	14.2	98.7
	Trash Management/Not littering	9	1.7	1.7	84.5
	Making better environmental choices	6	1.1	1.1	99.8
	8	1	.2	.2	100.0

Visitor Behaviour Information

Surveyed visitors were asked if they would participate in sea turtle conservation with Hawai'i Wildlife Fund, during their trip, given the opportunity. Answer selections included 'Yes', 'No', or 'Maybe'.

47.1% = 'Maybe' 28.0 = 'Yes' 14.9% = 'No' 9.2% = Did not answer

Table 15: Opportunity to participate in sea turtle conservation with HWF

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	Maybe	256	47.1	47.1	75.1
	Yes	152	28.0	28.0	28.0
	No	81	14.9	14.9	90.1
	Did not answer	50	9.2	9.2	99.3
	Invalid Response/Double Answer	4	.7	.7	100.0

Visitors were asked whether they actively volunteer/participate in a conservational/environmental organization. Answer selections included 'Yes' and 'No'. If 'Yes', they were asked to write the name of the organization.

78.3% of respondents answered 'No', 9.0% 'Yes', and 12.3% Did not answer. 0.4% of answers were invalid due to conflicting answer selections (ex: 'No', but volunteers with an animal shelter).

Table 16: Do you actively volunteer in a conservational/environmental organization?

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Total	543	100.0	100.0	
	No	425	78.3	78.3	87.3
	Did not answer	67	12.3	12.3	99.6
	Yes	49	9.0	9.0	9.0
	Invalid Response	2	.4	.4	100.0

Of the 9.0%, the most commonly engaged organizations were wildlife-based, which included WWF, the Sierra Club, Greenpeace, and the SPCA. Closely followed were organizations that enhanced the community or natural environments at large. Those included garden clubs, river and natural park conservation, and environmental alliances.

If surveyed participants stated they did not actively a volunteer in a conservational/environmental activity, they were asked to select the reason(s) why they did not engage and to answer 'Yes' or 'No' to the following statements below.

31.7% of respondents reported they did not have time. 23.7% answered that there were no direct experiences where they lived. 21.% replied that they did not know how to get involved and 10.7% reported it costs money. 6.7% felt the issue was due to poor infrastructure and 6.2% stated it was due to poor management concerns.

Table 17: I want to engage in a conservational activity but…

	Responses		
	N	Percent	Percent of Cases
I have no time	246	31.7%	67.6%
There are no direct experiences where I live	184	23.7%	50.5%
I do not know how to get involved	163	21.0%	44.8%
It costs money	83	10.7%	22.8%
There is poor infrastructure	52	6.7%	14.3%
There is poor management	48	6.2%	13.2%
Total	776	100.0%	213.2%

a. Dichotomy group tabulated at value 1.

The means for all these responses were low to very low. A common occurrence from respondents was to answer the statement that best suited their situation, as opposed to filling out 'Yes' or 'No' to all statements on the survey.

The two remaining questions in the visitor behaviour section of the survey were thrown out of the analysis. They included:

A) We are all connected. How will help the basking sea turtles once you return home? 25.2% of respondents did not answer this question (137/543).

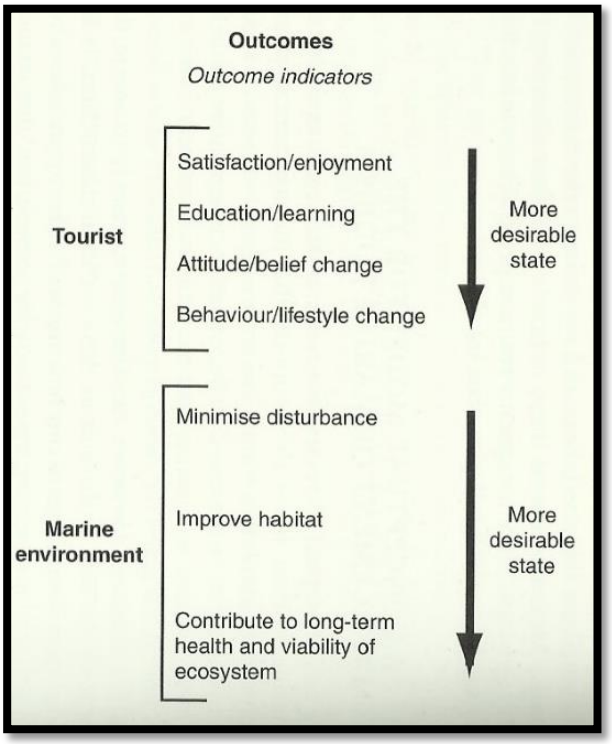
B) The other question asked participants to list the pro-environmental habits they currently have. 31.9% of those surveyed did not answer this question 173/543).

Analysis

The objective of this research was to identify whether visitors transition into more responsible marine tourists, through their interaction with the basking Hawaiian green sea turtles, at Ho'okipa Beach Park and to aid HWF with visitor and site management strategies. This was to be accomplished, by measuring the outcome indicators adapted from Orams' conceptual model for the management of marine tourism (Orams, M., 1995).

Table 18: Outcome Indicators (Orams, M., 1999)

(From: Marine Tourism: Development, Impacts and Management)



Orams (1999) explains that the Outcome Indicators may be thought of as a series of four steps.

Management of a marine tourist experience may be measured by the satisfaction and enjoyment it impacts upon the visitor (step 1). The two intermediate steps, education/learning (step2) and attitudes/belief change (step 3), are the building and support blocks that facilitate

the visitor into a behaviour/lifestyle change (step 4). The visitor's transition, positively impacts the marine environment.

On Ho'okipa Beach, Maui, the non-profit Hawai'i Wildlife Fund (HWF) supplies volunteers who deliver interpretation, when asked, about the Hawaiian green sea turtles, to visitors at the basking site. The area the turtles normally bask in, contains signage and a roped barrier to deter people from entering the basking space. HWF volunteers, closely monitor visitors and their behaviours.

In July of 2017, 543 visitors completed the survey for this study. 56.7% were female, 34.6% male, and 0.2% were gender unspecified. Approximately 48% of respondents were between the ages of 40 and 50 years old. Principal countries respondents resided in, included the U.S., Canada, and the European Union. 84.9% of visitors witnessed the Hawaiian green sea turtles bask for the first time with 42.9% of them finding out about the turtles, and their location, via word of mouth. Locals, friends, family members, taxi drivers, car rental companies, even servers, set the stage for what the visitor might find at the beach. In turn, these visitors, actively sought the viewing experience at Ho'okipa Beach Park, anticipating a memorable experience. The number one listed attribute, important to a visitor's satisfying experience.

Importance that the basking turtles were a naturally occurring event and authentic in character, was critical to the encounter being satisfying, as was the proximity to the sea turtles on the beach. This strengthened the experience, since most tourists reported that viewing an animal they normally do not see, and on the endangered species list, was important toward a satisfying experience. Yet, having confidence the turtles would be basking and the number of turtles the visitor may view, was more neutral in importance.

The enjoyment factor was reinforced by visitors possessing feelings of affection and empathy toward the sea turtles. This was especially true for the 19.3% of visitors who had stopped at Ho'okipa Beach to look at the view, watch windsurfers, or participate in beach or ocean activities, and had unknowingly discovered the basking turtles. Out of the 1519 entries collected, the top three emotions visitors felt while witnessing the basking event, were 'happy', 'amazing', and 'peaceful'.

The reverse was also true. The photographic opportunity was significant to a satisfactory experience, but many visitors went too far. Those who violated the barrier for a photograph were frequently shouted at by other visitors. Repeat offences or intentional disregard for the boundary and signs, created discontentment in the viewing experiences of those who respected the periphery. Occasionally, a local resident present on the beach, would confront the visitor on their own accord. Although not one of the top three sentiments, the words 'anger' and 'sadness' did appear in the 1519 emotions collected.

Aside from the number of green sea turtles a visitor may see in a specific area, the uniqueness of the basking event lies in its consistency. This often caused the visitor to seek information about the turtles, as 56.3% of visitors spoke to a HWF representative. Respondents were asked what two facts they had learned while witnessing the turtles, however, this information was removed from the study. Most HWF volunteers could work the mid-afternoon to park closing shifts, but not many could volunteer during the daytime hours. During those times surveyed, the student researcher was in a position where she was asked questions by the visitors, even when a volunteer was present, but in a lower capacity. Therefore, the data gathered by this question would be significantly biased, as visitors would be reiterating information from their conversations with the researcher. Still, 56.5% of visitors admitted they had no prior knowledge of responsible

sea turtle viewing guidelines before their experience at Ho'okipa and left the basking site more knowledgeable than when they arrived.

83.4% of visitors agreed the basking event caused them to care more about sea turtle conservation and 78.3% consented it caused them to care more about their environmental choices. This was an important figure, as it enabled further measurement of visitor attitudes. Most noteworthy, was that visitors strongly agreed that the basking sea turtles should be minimally disturbed and are much more than tourism objects. They answered similarly, when asked what being a responsible tourist meant to them, stating respect of the environment/wildlife habitats and not disturbing the sea turtles by giving them space, adherence to rules, signage, cultural norms and to leave no footprint behind. Yet they agreed less so, that they had a responsibility/ownership to participate in ethical wildlife encounters, or desire to view the turtles from a platform to make less impacts on them. It must be mentioned that visitors agreed and had no issues with being in support of viewing the basking sea turtles from a viewing platform, creating less impacts on the turtles, while still allowing them the experience. Nonetheless, when compared with other attitudes, the experience and satisfaction of sea turtle proximity, prevailed over protection and impacts.

A secondary attitude, was that while visitors agreed that they benefitted from viewing the basking turtles and felt concerned about the number of people at the ocean entry and/or around the turtles on the beach, they were less confident in their belief that there were actions they could take to help the turtles.

To assess whether the emotions, learning, and attitudes would guide the tourist to create changes in their lifestyle and behaviour, the survey asked questions related to opportunities to participate in sea turtle conservation with HWF. Whether visitors were volunteers themselves in a conservational or environmental organization back home

and if not, what the barriers to engaging in a conservational/environmental activity might be. Also queried, was how they might help the basking sea turtles once they returned home and what pro-environmental habits they currently held.

28.0% of visitors acknowledged they would participate in sea turtle conservation with HWF and 9.0% of visitors were already involved as volunteers in wildlife or environmental establishments. Those that do not volunteer stated not having time was the biggest reason, followed closely by having no direct experiences where they lived or not knowing how to get involved. Respondents mainly filled out what applied to their lifestyle most, as opposed to answering 'yes' or 'no' to all the six choices. This portion of the survey suffered from survey fatigue and the number of respondents were very low. Consequently, 25.2% of respondents did not answer how they were going to help the basking sea turtles once they returned home and 31.9% did not reply to the question listing pro-environmental habits, so the data for each, was not analyzed.

Viewing the basking green sea turtles is a one-of-a-kind naturally occurring event. As visitors seek memorable experiences that are authentic, combined with the proximity of the turtles, photographic opportunities, and the beauty of paradise, one would be hard pressed not to feel emotion. The turtles, their size, their movement, their smell, the warmth of the sun, sand on the feet, and the flow of the tide, deliver a satisfying and enjoyable experience. Step one of Orams model (1995), accomplished.

Where circumstances become more difficult, is in the realm of learning and belief, step two and three. The emotional spillover from the experiential enjoyment propels some visitors to be recognized as having the attitudes of a responsible tourist. These individuals volunteer already in their homeland and one can assume they may make the transition toward more positive lifestyle changes, in future. However, the visitors

that do not understand how or which actions to take to benefit the turtles, will need to be patiently educated, before beliefs can change merging into lifestyle transition.

Despite HWF's best efforts to monitor visitors and impart education, many visitors disregarded boundaries. The number of tourists on Ho'okipa Beach in July was high and often there were days where a turtle came to bask in a different area on the beach and volunteers had to spread out in two areas, making visitor site monitoring more difficult. The HWF leads with a positive message, but often it makes its way to a few visiting individuals and less to a large or majority group. The interpretation is casual, not structured.

In his study with dolphins (1997) Orams found that the tourist interaction with the marine mammal produced a desire to become more responsible tourists. "However, those tourists who were not given the structured education programme seldom carried out these good intentions" (Orams, M., 1997).

While some visitors know what constitutes a responsible tourist (the basking turtles should be minimally disturbed) and abide by proper codes of conduct, they also want their personal interaction. Zeppel (2008), who completed her own study using Orams (1999) outcome indicators to measure 18 different marine wildlife experiences concurred, that "visitor learning and emotional empathy during mediated encounters with marine wildlife contributed to on-site behavior changes and some longer term intentions to engage in marine conservation actions".

Conclusion

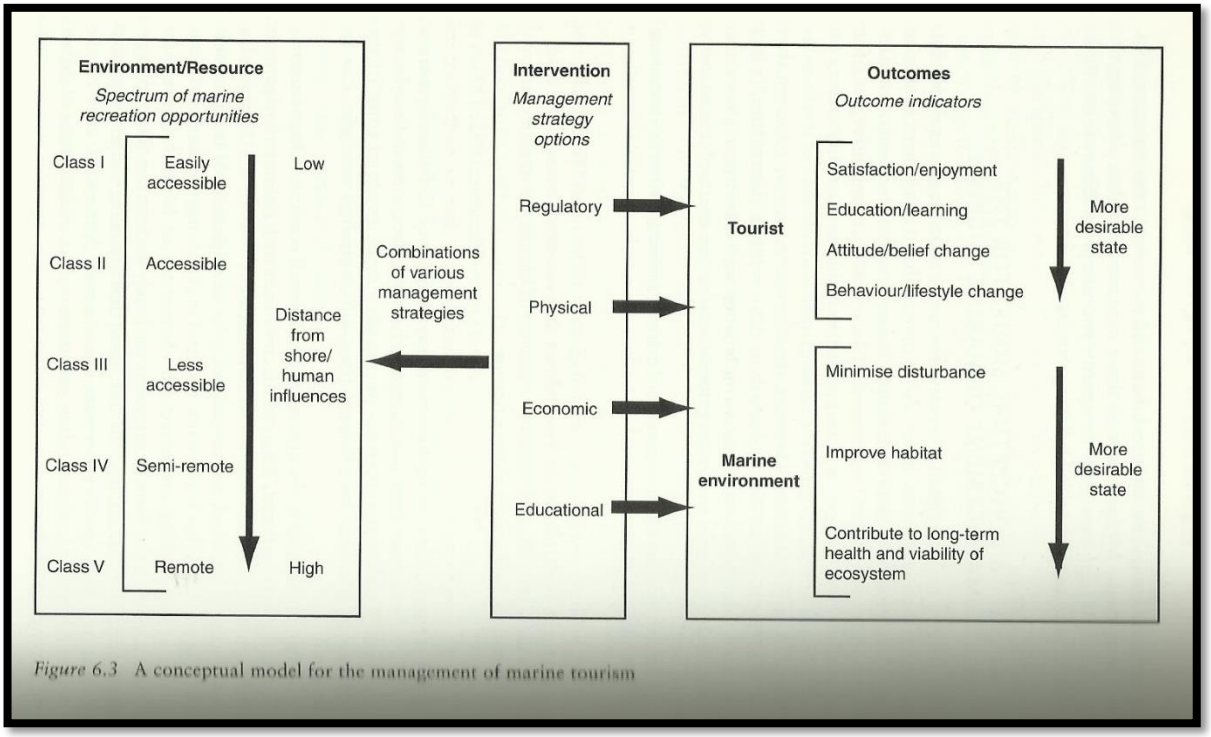
This study cannot truly determine whether visitors will transition into more responsible tourists, without the completion of a post longitudinal study of visitor behaviours. There is some evidence to support that the impacts the basking sea turtles have made on visitors, may offer behaviour changes in that direction. Yet, there are several challenges to get through before that end may be realized.

The criteria are all present. The satisfying experience, the emotion, the non-profit to deliver the interpretation, but to do so, Maui County must take their beach back from the visitors. The Tragedy of the Commons (Hardin, G., 1968) is greatly affecting the transition into more responsible tourism and the sea turtles are the ones suffering the consequences. Once measures are taken to manage Ho'okipa Beach Park initially, then visitor interpretation can be established, mediated, and perhaps optimistic changes toward behaviour and lifestyle transitions toward more responsible tourists, can prevail.

Recommendations

The Orams' (1999) Outcome Indicators used for this study, is a portion of a larger framework, which incorporates the environment and management strategy options.

Table 19: Conceptual Model for the Management of Marine Tourism (Orams, M., 1999)
(From: Marine Tourism: Development, Impacts and Management)



In order to shift visitors toward a successful transition into more responsible tourism, I recommend Maui County employ all four of Orams' (1999) management strategies: physical, economic, regulatory and educational. Physical strategies are physical structures that control activities. Regulatory strategies include forming rules and regulations for people to abide by. Economic strategies include fines and fees and Educational strategies involve signage, printed material, visitor and interpretation centres (Orams, M., 1999).

Since Ho'okipa Beach Park is easily accessible, the simplest immediate strategy is to have the entry gate to the park, promptly closed at 7pm. Currently, both the entry gate and exit gate remain open, so surfers and beachgoers may exit the park. However, it still creates access to visitors who come into the park to see the turtles before park closure. If the entry gate is closed at 7pm, the flow of traffic is forced to exit in one direction out of the park and no new tourists may come in. The way the exit gate is positioned from Hana Highway, makes it more difficult to enter the park from the reverse direction. Although it still is not impossible for visitors to enter the park this way, they would encounter oncoming traffic from vehicles leaving the park. This provides for less volume of last minute visitors trying to get access into the park to view the turtles. It reduces the tourist numbers at the end of the evening for Hawai'i Wildlife Fund to have to deal with and creates less of a chance the green sea turtles will have to endure an uniformed visitor using flash photography.

Two other strategies include setting up a toll booth and designating the existing open area next to the picnic pavilion, to be the basking sea turtle viewing and interpretation platform.

Both the Iao Valley State Park and Haleakala National Park have suffered from intensive visitor demand, in past. Both have set up toll booths charging a modest visitor park fee for use and maintenance and in the case of Haleakala National Park, utilizes an online reservation system for visitors to reserve spots for sunrise viewing. The option here is to allow free Ho'okipa Beach access to Hawai'i State residents by way of a pass or some other sort of identification, but charge the visitor park entry fees. There are approximately 36 parking stalls located on the lookout portion of the park. The county could set up an online visitor reservation system for those 36 stalls only, charging for daily passes, significantly reducing the mass volume of tourists. If visitors want to surf or snorkel they will reserve a spot and pay the fee. This does not prevent visitors from

approaching the turtles on the beach once they have purchased their reservation and are allowed access within the park, however, there would be 36 stalls of visitors to monitor, not 500 visitors daily (Bernard, H., personal communication, November 26, 2016). If visitors were opposed to the fee, there are plenty of beaches locals have access to from west to south Maui.

Have visitors wishing to view the basking sea turtles, book the experience with a tour guide company, which reserves its time through Hawai'i Wildlife Fund. There is access for at least three to five buses that hold 8 to 25 passengers, alongside the entry to the park. These visitors enter the park by tour bus/tour guide only. The driver escorts the visitors to the viewing platform area, which already overlooks the beach where the green turtles bask. In this area there can be mediated interpretation, printed materials, and a visitor donation box for HWF. The visitors receive their experience of witnessing the basking event, eliminating issues of violating boundaries, and are instead offered current opportunities to participate with Hawai'i Wildlife Fund in sea turtle conservation during their trip. While 28.0% of visitors said they would participate in sea turtle conservation with HWF, 47.1% stated 'maybe'. An emotionally satisfying viewing experience combined with an educational interpretation medium could be the turning point for visitors to find out more about the HWF organization and engaged in activities that transition the visitor into a more responsible tourist.

I endorse following the model Iao Valley State Park and Haleakala National Park execute, by charging tour guide companies the same park entry fees enforced by the Public Utilities Commission regarding sizes of passenger vehicles. I would also recommend charging a 2% or 3% tax on tour guide companies, like a hotel tax, as they have reaped the benefits of paid tours and tip earnings at length, while Hawai'i Wildlife Fund has been the one to monitor their visitors and impart education without receiving monies from guiding agencies, and do so by relying upon volunteer resources.

If a toll booth model is unacceptable to the county, I recommend Hawai'i Wildlife Fund set up a small table on the beach by the viewing area with more educational/interpretational materials visitors can access. This includes opportunities for how visitors may be able to get involved with HWF.

Signage needs to be placed on all the beaches around Maui, but specifically at Ho'okipa, reminding people that green sea turtles are protected by U.S. State and Federal Law (Hawaii State, 2017) and regarded as threatened under the Endangered Species Act (ESA). Followed by enforcement. Regulations are a waste of time without enforcement. Posting of the ESA penalties charged for harassment of green sea turtles, is recommended. Signage advising people to stay a distance of 10 feet from turtles is also recommended. Although distance from the turtle is not enforceable, an individual who goes up so close to a turtle that it moves/becomes disturbed, is grounds for enforcement under U.S. State and Federal Law (Hawaii State, 2017).

The local community on Maui must take ownership of fueling the fires, by telling visitors where to find the turtles. Hotels, especially ocean front resorts, should inform visitors during check-in to keep their distance from turtles and what proper sea turtle viewing guidelines are. Offering a rack card they can give the visitor with their key, that outlines these behaviours in writing and contact information of the Hawai'i Wildlife Fund. The same information needs to be given to visitor centers, taxi drivers, and restaurants, and frequently stated on the Maui Visitor Channel.

Therefore, physical hard site changes combined with regulatory, economic, and educational strategies, within a larger community initiative, will help foster the success of transitioning the visitor into a more responsible tourist. Good for all concerned, should those visitors become repeat tourists to the island.

Limitations

Restrictions include funding for the toll both and wages for a toll booth operator. These would be needed initially. Perhaps splitting the tour guide tax between Hawai'i Wildlife Fund and Maui County could pay for the toll booth service in a few months. The county would also need resources to set up an online reservations system and officers who could enforce penalties stemming from violations. Money would be needed for signage and production values for the Maui Visitor Channel.

Hawai'i Wildlife Fund would have to spend time recruiting and training employees to run structured interpretation and viewing experiences, print materials, and initial costs in set-up of the interpretation centre. Funding must be there for HWF in the way of grants, the tour guide tax, or a subsidy from Maui County.

Contributions to Research

This research will provide Hawai'i Wildlife Fund with an assessment of their interpretation practices and offer Maui County and the Hawaiian Tourism Authority knowledge of the impact of the basking sea turtles at Ho'okipa, on tourists.

Globally, it will provide valuable insights in marine tourism management and inform strategies toward best practices for visitor interpretation, helping visitors transition into more responsible tourists. This will have value beyond the Hawaiian context, beneficial for other destinations with sea turtle populations.

Acknowledgments

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Appendix A

THOMPSON RIVERS UNIVERSITY

The Impact of the Terrestrial Basking Event of Hawaiian Green Sea Turtles on Visitors at Ho'okipa, Maui

Aloha!

Thompson Rivers University (TRU) in Kamloops BC, Canada, in collaboration with Hawai'i Wildlife Fund (HWF), is conducting research at Ho'okipa Beach Park to determine the impacts visitors experience, witnessing the basking event of the green sea turtles (Honu). We also hope it will help us preserve the turtles and their basking site.

Can you help us? - If you are a visitor, 18+ years of age, we would be grateful if you could answer our survey about visitor experiences and your perceptions regarding satisfaction, learning, attitudes, and behaviors. It takes around 10 minutes to complete and includes 40 questions. Participation is strictly voluntary. You may withdraw from the study at any time, without negative consequences. Abandoned surveys will be shredded.

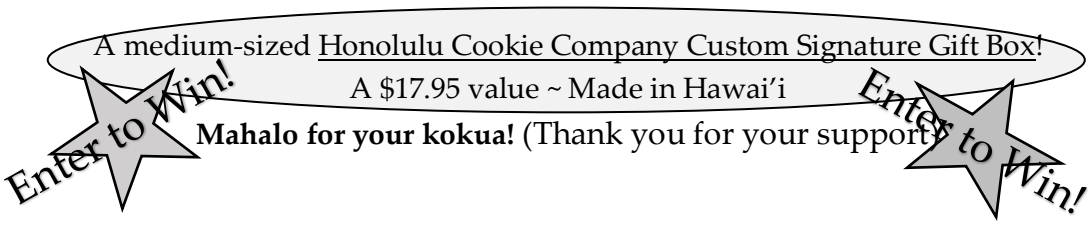
Confidentiality & Use of Information - Your responses are anonymous and cannot be traced back to you. Data is accessible to the investigator and faculty supervisor of Thompson Rivers University and Executive Director of Hawai'i Wildlife Fund, Hannah Bernard, only. Survey data will be entered onto a computer and password protected. Survey copies will be locked in an office. Data is destroyed 5 years post-study completion. The information will be used for presentation, publication, and basking site management.

This study is approved by the Thompson Rivers University Research Ethics Board
TRU-REB@tru.ca / 250.828.5000

For questions, concerns, and updates about this research, or to receive an Executive Summary once research is completed - please contact Thompson Rivers University members:

- Colleen Black - Principal Investigator - 250.319.2789 - blackc12@mytru.ca
- Dr. John S. Hull - Faculty Supervisor - jhull@tru.ca - Thompson Rivers University

Completing and submitting the survey indicates an understanding of the purpose of the study and an agreement to participate. You are confirming you are 18+ years old.



Section A: Visitor Satisfaction Information

1a. Is this the <u>FIRST</u> time you have witnessed the basking green sea turtles at Ho'okipa?

Yes	No

1b. <u>If NO</u> to 1a, how many times, have you witnessed the basking green sea turtles at Ho'okipa?

This trip	
Previous trips	

2. Including yourself, how many people are you viewing the turtles with? _____

3. How did you find out about the basking sea turtles at Ho'okipa Beach?

- ○ A tour guide/company told you — Which one? _____
- ○ A hotel/B&B told you — Which one? _____
- ○ Visitor Information Centre — Location: _____
- ○ Media/Website Source — Which one? _____
- ○ Other _____

How important were the following in achieving a satisfying experience when viewing the basking green sea turtles at Ho'okipa?

Very Important=5 Important=4 Neutral=3 Unimportant=2 Very Unimportant=1

4. The proximity of the turtles.	**5**	**4**	**3**	**2**	**1**
5. Easy access to the beach/basking site.	**5**	**4**	**3**	**2**	**1**
6. The number of turtles at the basking site.	**5**	**4**	**3**	**2**	**1**
7. Confidence the turtles would be basking.	**5**	**4**	**3**	**2**	**1**
8. Viewing an animal I normally do not see.	**5**	**4**	**3**	**2**	**1**
9. Seeing an animal on the Endangered Species List.	**5**	**4**	**3**	**2**	**1**
10. Viewing an animal important to Hawaiian culture.	**5**	**4**	**3**	**2**	**1**
11. Feeling a sense of place viewing the basking turtles.	**5**	**4**	**3**	**2**	**1**
12. The basking turtles are a memorable experience.	**5**	**4**	**3**	**2**	**1**
13. The basking event is natural and authentic.	**5**	**4**	**3**	**2**	**1**
14. Affection/Empathy towards the sea turtles.	**5**	**4**	**3**	**2**	**1**
15. A photographic opportunity.	**5**	**4**	**3**	**2**	**1**

16. Which THREE words best describe the <u>emotions</u> you feel from witnessing the green sea turtles bask?

1. _____ 2. _____ 3. _____

Section B: Visitor Learning Information

17. Did you receive information about the basking sea turtles from a Hawai'i Wildlife Fund representative during your experience?

Yes	No

18. What are <u>TWO</u> facts you learned about the basking green sea turtles?

1. _____

2. _____

19. Viewing the basking sea turtles has caused me to care more about:

a) Sea turtle conservation.?	Agree	Undecided	Disagree
b) My environmental choices?	Agree	Undecided	Disagree

21. Did you have any prior knowledge of responsible sea turtle viewing guidelines, before your experience at Ho'okipa?

Yes	No

Section C: Visitor Attitudes Information

Using the scale below, please indicate your responses to the following statements.

Strongly Agree=5 Agree=4 Undecided=3 Disagree =2 Strongly Disagree=1

22. I benefit from viewing the basking green sea turtles.	**5**	**4**	**3**	**2**	**1**
23. I believe there are actions I can take to help the turtles.	**5**	**4**	**3**	**2**	**1**
24. Sea turtles/wildlife are much more than tourism objects.	**5**	**4**	**3**	**2**	**1**
25. It is my responsibility to participate in ethical wildlife encounters.	**5**	**4**	**3**	**2**	**1**
26. Sustainability of viewing the turtles basking at Ho'okipa depends on visitor and site management.	**5**	**4**	**3**	**2**	**1**
27. Protecting the turtles protects their significance in Hawaiian culture.	**5**	**4**	**3**	**2**	**1**
28. The basking green sea turtles should be minimally disturbed.	**5**	**4**	**3**	**2**	**1**
29. The number of people around the basking sea turtles concerns me.	**5**	**4**	**3**	**2**	**1**
30. The number of people in the water at the ocean entry concerns me.	**5**	**4**	**3**	**2**	**1**
31. I would view the turtles from a platform to make less impacts on them, while still allowing me the experience.	**5**	**4**	**3**	**2**	**1**
32. I would support a modest park visitor fee, knowing proceeds assisted Hawai'i Wildlife Fund and Maui County with visitor and site management of the basking sea turtles at Ho'okipa.	**5**	**4**	**3**	**2**	**1**
33. I would NOT support a visitor park fee, but <u>WOULD</u> donate to Hawai'i Wildlife Fund to support them with visitor and site management of the basking sea turtles at Ho'okipa.	**5**	**4**	**3**	**2**	**1**

34. What does being a "responsible tourist" mean to you?

_____

_____

Section D: Visitor Behaviour Information

35. If you had an opportunity to participate in sea turtle conservation with Hawai'i Wildlife Fund during your trip, would you?

Yes	Maybe	No

36. I actively volunteer/participate in a conservational/environmental organization now.

Yes	No

If Yes, please name organization: _____

37. I would like to engage in a conservational/environmental activity but:	**Yes**	**No**
a). I don't know how to get involved.		
b). I don't have time.		
c). It costs money.		
d). There are no direct experiences where I live.		
e). There is poor infrastructure.		
f). There is poor management.		

38. We are all inter-connected. How will you help the basking sea turtles once you return home?

_____

_____

39. Pro-environmental habits I have now are: _____

_____

Section E: Socio-demographic Information

40. I identify my gender as:

Male	1
Female	2
Transgender	3
Unspecified	4

41. Where do you currently reside?

City:
Country:

42. Year Born? ____

Comments: _____

_____

_____

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Winner will be chosen via blind selection by Hannah Bernard, Executive Director of Hawai'i Wildlife Fund.

Select: **a). If I win ~** I Want Cookies **WITH NUTS** in my gift box.

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By entering to win, I understand that the Honolulu Cookie Company uses nuts at/within their kitchen and nuts are/may be present at/within Honolulu Cookie Company store front facilities. This includes areas where packaging of cookies may occur.

I enter this draw voluntarily and understand there is no way to guarantee a 100% nut-free contamination of cookies in my gift box, should I win, and waive my right to impose liability on the principal investigator of this survey (Colleen Black), faculty supervisor (Dr. John S. Hull), Thompson Rivers University, Hawai'i Wildlife Fund (Hannah Bernard), and/or the Honolulu Cookie Company.

Name: (Please Print) _____

Signature: _____ Date: _____

Email: (Please Print)

_____

You will be contacted via email for your mailing address, if you are the winner.

Your contact information will be seen by the principal investigator of this survey (Colleen Black) and Hannah Bernard, Executive Director of Hawai'i Wildlife Fund, only. This information will be used to complete this draw. Entry forms will be kept in a locked office and destroyed one month post-draw completion.

Appendix B

June 06, 2017

Ms. Colleen Black

School of Tourism\Tourism Management

Thompson Rivers University

File Number: 101592

Approval Date: June 06, 2017

Expiry Date: June 05, 2018

Dear Ms. Colleen Black,

The Research Ethics Board has reviewed your application titled 'The impact of the terrestrial basking event of Hawaiian green sea turtles on visitors at Ho'okipa, Maui: creating more responsible tourists.'. Your application has been approved. You may begin the proposed research. This REB approval, dated June 06, 2017, is valid for one year less a day: June 05, 2018.

Throughout the duration of this REB approval, all requests for modifications, renewals and serious adverse event reports are submitted via the Research Portal. To continue your proposed research beyond June 05, 2018, you must submit a Renewal Form before June 05, 2018. If your research ends before June 05, 2018, please submit a Final Report Form to close out REB approval monitoring efforts.

If you have any questions about the REB review & approval process, please contact the Research Ethics Office via 250.852.7122. If you encounter any issues when working in the Research Portal, please contact the Research Office at 250.371.5586.

Sincerely,

[https://tru.researchservicesoffice.com/logo/ESignature3.jpg]

Andrew Fergus

Chair, Research Ethics Board