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South Atlantic Natural Capital Assessment: St Helena marine tourism values.

ENVIRONMENTAL RESEARCH INSTITUTE
SOUTH ATLANTIC

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Review table

Name	Reviewed by	Date
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Version 4		

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Introduction

This study was conducted by the South Atlantic Environmental Research Institute (SAERI), Joshua Drew (State University of New York, College of Environmental Science and Forestry) and the St Helena National Trust and its findings contribute evidence to a programme of natural capital assessments being implemented by the UK Joint Nature Conservation Committee (JNCC) and carried out by SAERI in the UK South Atlantic Overseas Territories. Funded by the Foreign and Commonwealth Office managed Conflict, Stability and Security Fund, the work sits under its Environmental Resilience programme which includes objectives to integrate natural capital considerations into economic and social development planning.

A consultation workshop was held on St Helena in January 2018 which resulted in the identification of priority areas for further study. The value of tourism, and particularly 'how much would visitors be prepared to pay for nature's products?' was highlighted at this workshop as being of particular importance. Given that whale sharks are potentially one of St Helena's most valuable assets, it was agreed to conduct a willingness to pay study (WTP), focusing on this marine species.

Background

The occurrence of whale shark (*Rhincodon typus*) aggregations around the island during the Austral summer months has been known locally for generations and sightings have been recorded by ENRD[1] since 1999. It is only in the last few years, however, that systematic research has been conducted on these aggregations and, as a consequence, that their global importance has been recognised. The characteristics of the aggregation, along with local accounts of mating behaviour, indicate that St Helena may be an important area in the breeding cycle of whale sharks (Clingham *et al.*, 2016).

Tourism is the key driver for economic development on St Helena[2], which has included the building of a runway and airport funded by the UK Government. There has been a steady increase in tourist numbers to around 3,000 visitors per year, including those visiting friends and family,[3] since commercial flights commenced towards the end of 2017. As knowledge of how unique the experience of snorkelling with St Helena's whale sharks has spread, St Helena Tourism has capitalised on this by featuring the experience prominently in marketing literature and promotional items, including whale shark USB sticks which are given out at events. Demand is growing and this will need to be managed carefully.

Whilst marine wildlife tourism has been shown to bring significant economic benefits to Small Island States (Vianna et al, 2012, Cagua et al, 2014), it can also have very high social and environmental impacts (Diedrich & Aswani, 2016, Schembri, 2016). Tourist interactions

[1] St Helena's Sustainable Economic Development Plan, 2018 – 2028 (Draft). Personal copy.

[2] St Helena Development Strategy, St Helena Tourism Strategy

[3] http://www.sainthelena.gov.sh/statistics-update-population-3/

are considered an indirect threat to whale sharks through disturbance leading to altered behaviours (Haskell et al 2013, Sanzogni et al 2015, Raudino et al, 2016). Long-term impacts on aggregations have not been identified, but this may be because studies have focused only on non-breeding populations (Haskell et al, 2013).

St Helena has a robust marine governance and management already in place. In September 2016, the entire 200nm Exclusive Fisheries Zone (EFZ) of St Helena was designated as an IUCN category VI "protected area with sustainable use of natural resources". The marine management plan for the 444,916km^2 Marine Protected Area (MPA) has also been formally adopted. The plan sets out management strategies for the marine environment that aim to protect marine biodiversity and ensure sustainable resource use. It also has a specific policy which addresses interactions with charismatic megafauna[4] - under which recreational scuba diving with whale sharks is not permitted - and a pilot Marine Tour Operator Environmental Accreditation Scheme, soon to be fully operational through collaboration with the UK Government Blue Belt programme.

In this context, a willingness to pay survey was designed to better understand how much people are willing to pay to snorkel with whale sharks. In addition to the willingness to pay questions, a broader set were included in the questionnaire to gain insight into what people know about whale sharks - which will help education programmes - and their general attitude to the marine environment and how it is managed on St Helena.

St Helenians have interacted with whale sharks in their inshore waters for generations and some concerns were expressed on island that the survey would implicate that they would have to pay more for this experience which is part of their heritage. It was therefore important to include St Helenians living overseas but visiting friends and family, and those living on the island, within the survey to ensure that WTP was established for all demographics.

Methods

A questionnaire, designed to be completed by face-to-face interview, was written with a mixture of qualitative, tick-box and 10-point Likert scale questions (Appendix I) with additional areas for open responses to contextualize the quantitative data. The questionnaire was divided into three parts; pre and post-trip sections and a third section focused specifically on scuba divers. This was administered during the peak whale shark tourism season on St Helena, between 15th January and 15th April 2019. Ideally, all respondents were interviewed before and after a whale shark snorkelling trip to understand how much the experience influenced their willingness to pay. People who hadn't booked a trip were also targeted. Interviewers aimed to capture approximately 40% of all tourists visiting the island, and as many St Helena residents taking part in snorkel trips as possible. All people coming to

[4] Environmental policy for whale shark (*Rhincodon typus*), devil ray (*Mobula tarapacana*) and cetacean interaction activities on St Helena island to minimise risk of injury and disturbance.

scuba dive were targeted separately. Data were analysed in the R statistical environment and Microsoft Excel and, as the data were not normally distributed, non-parametric statistics were therefore used to assess differences among and between groups.

Results

Background

Overall we received data from 154 individuals, of which the three most numerous groups were British (67) St Helenian (36) and South African (21). To assess background information about whale sharks we asked participants five questions about the general biology of the species. If an individual got four out of the five correct we marked that as a pass. Of the 90 individuals that completed all five questions, 51 answered at least four out of the five correctly, while 39 did not (Figure 1).

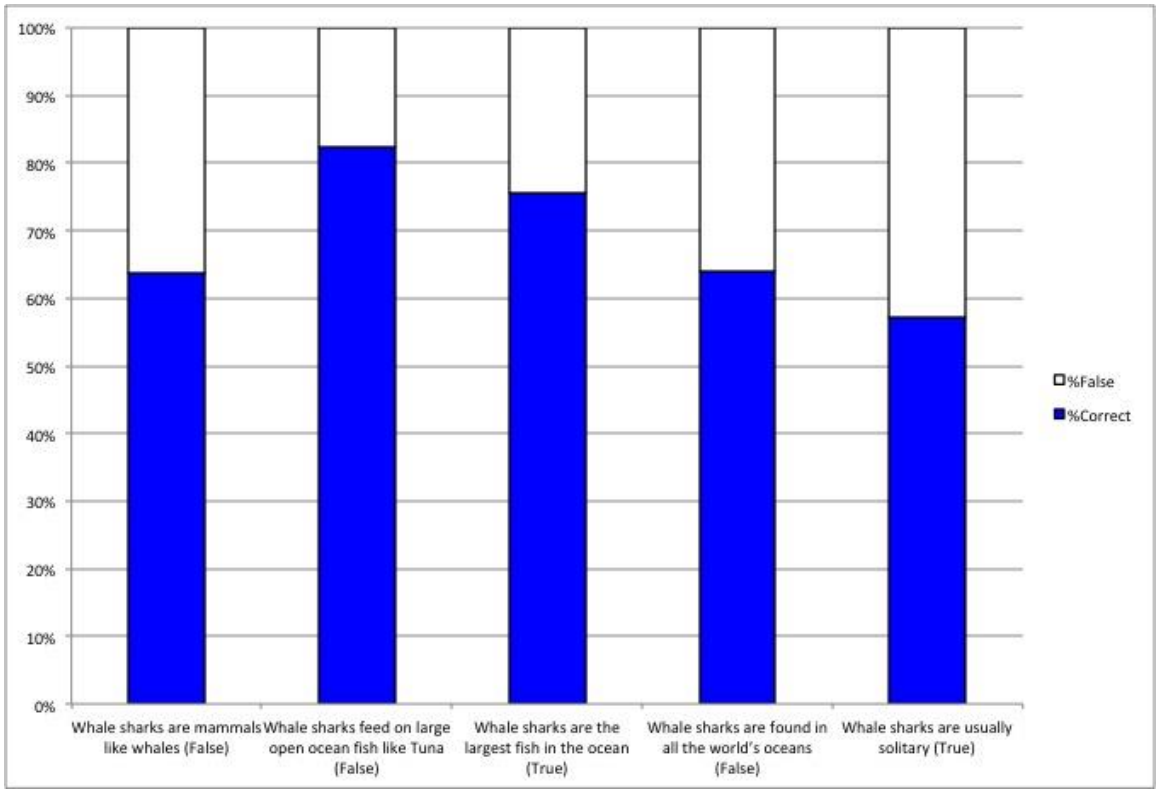

Figure 1: Participants answers on baseline information about whale sharks.

Opinions and Perceptions

The results of the opinion surveys showed strong agreement in several environmental themed statements. There was almost universal support (mean 9.82/10) for the statement that "*St Helena has a responsibility to protect its environment*". Moreover, these pro-environmental statements translated into calls for action at the personal level "*I would like to do more to protect the marine environment*" (9.15/10) and "*I would like to learn more ways to*

protect the environment " (9/10), and at the governmental level, "*Although it costs more, sewage should be treated on land, not pumped out to sea*" (9.29/10). There were no significant differences between the support for not pumping sewage to sea between those who thought the industry was well managed (9.63/10) versus those who thought it was poorly managed (9.54/10) (Mann Whitney W = 383.5, p-value = 0.4132).

The interviewees were also aware of the relationship between tourism, the environment and the economy with the statement "*A healthy marine environment is important for the economy of St Helena*" receiving strong support (9.56), as well as "There is room to grow tourism in St Helena" (8.8/10) and "Tourism in St Helena is an important part of the economy" (9.02/10). However this pro-tourism view also intersected with the aforementioned environmental ethic in lesser extent "*I would like to see an area of sea around St Helena protected, where no human activities are allowed*" (6.1/10) and "*St Helena is a tourist destination because of its marine resources*" (7.19/10).

Perhaps surprisingly the interviewees had more equivocal views on whale sharks and the whale shark snorkelling industry. Respondents were not so sure that "*The whale sharks tourism around St Helena is well managed*" (7.6/10). Most disagreed that "*Whale sharks dislike people in the water with them*" (3.6/10) but agreed with its corollaries "*There should be more chances to interact with the whale sharks*" (5.86/10) and "*It is important to protect areas where whale sharks come together*" (9.56/10). They also recognized that there is a need for more scientific research with "*Overall, scientists have a pretty good understanding of whale shark movements*" (4.1/10) having the second lowest level of support.

There were also discussions of the differences between St Helenians and visitors, with strong and universal support for "*There should be efforts to ensure that St Helenians will have access to their marine environment*" (9/10). British and South African visitors were more likely to agree with "*I think residents of St Helena should have a discounted rate for tourist activities*" than St Helenians themselves although the overall support was still very high (8.8/10, p=.03). Tourists were more likely to support "*It would be acceptable to limit tourist activities if scientists found out they were harmful to the whale sharks*" (9.06/10) than St Helenians (p<.001). Figure 2 shows the complete set of results.

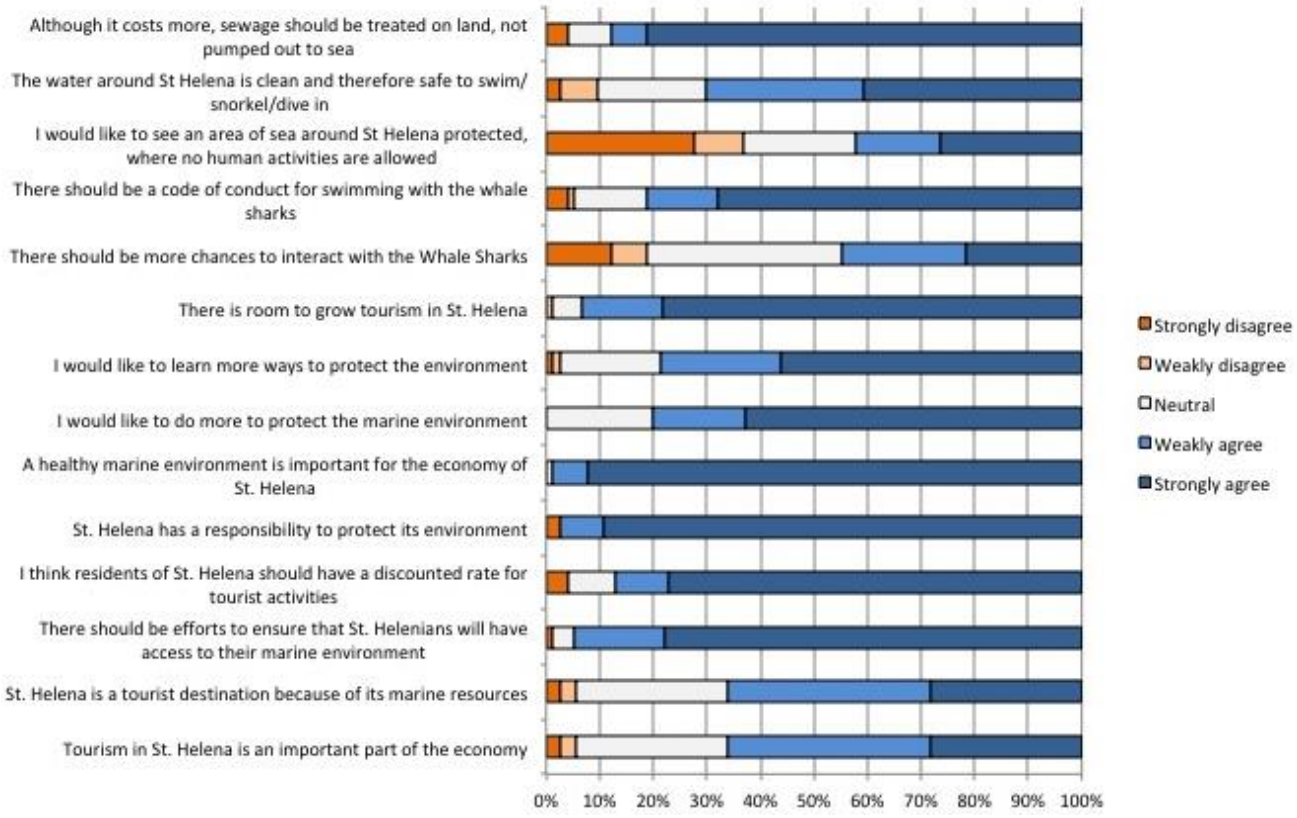

Figure 2: Participant's views on tourism, the marine environment and management.

When we interviewed people who came to St Helena specifically to scuba dive, we found that the main reasons they did so were to come to see underwater scenery (Likert 7.75), whale sharks (7.6), endemic species (7.5), to see wrecks (7.4) and to see manta rays (6.33), however the sample size for people responding here was relatively small (N=13). Note that diving with whale sharks is not permitted on St Helena.

Willingness To Pay to snorkel with whale sharks

These perceptions on the value of tourism and whale sharks translated into differences in snorkellers' willingness to pay. The current whale shark excursion typically consists of 16 people on a boat with eight in the water at any time and usually costs circa £50 per person (Our designated 16/8 scenario). Of the 77 individuals who responded whether they would be willing to pay more to snorkel with whale sharks, 36 (46%) indicated that they would be willing to pay at least £5 more (a 10% increase) and 25 (32%) indicated they would be willing to pay at least £10 more, which equates to a 20% increase over current values (Figure 4a).

When asked about a hypothetical scenario with eight people on the boat and all eight in the water (e.g. no one left on the boat, a scenario we designate "8/8" hereafter) 75 individuals responded of whom 34 (45%) indicated that they would be willing to pay at least £5 more and 30 (40%) indicated they would be willing to pay at least £10 more (Figure 4b). A further

hypothetical scenario was put to interviewees, where there was eight people on the boat and four in the water (our "8/4" situation) we had 23 of the 64 individuals (35%) respond that they would be willing to pay at least £5 more and 20 (31%) indicated they would be willing to pay at least £10 more (Figure 5a).

Overall the average value people are willing to pay for the 16/8 scenario across all individuals responding is £6.5 more (or 13% more), and there are no significant differences in WTP based on either income (Kruskal-Wallis chi-squared = 8.4192, df = 6, p-value = 0.209) or nationality (Kruskal-Wallis chi-squared = 21.167, df = 19, p-value = 0.3276).

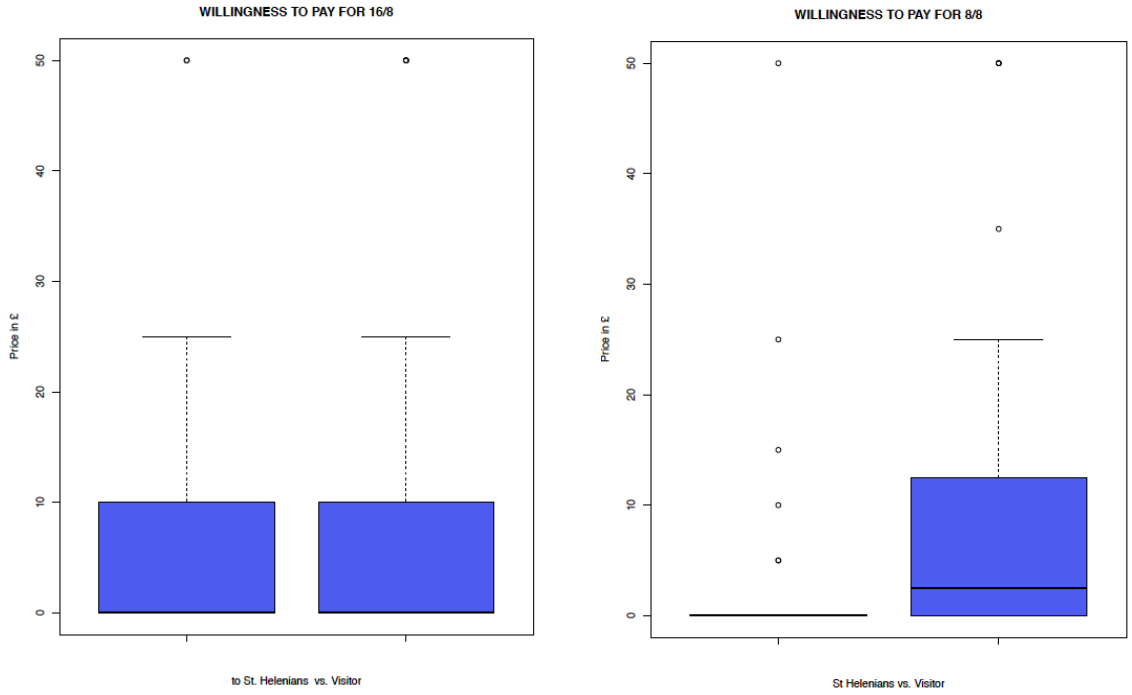

Figure 3 WTP for the 'business as usual' or "16/8" scenario. The Shaded box includes the middle 50% of all responses, the whiskers represent the upper and lower 95% confidence intervals. Outliers are shown as circles.

Given the"8/8" scenario, we found the average willingness to pay across all individuals surveyed was £7.9 (15.8% more), with significant differences based on Income (Kruskal-Wallis chi-squared = 15.446, df = 5, p-value = 0.008616) with those making those with higher levels of income (£60-80k) on average willing to pay more, however the overall sample size (n=8) may influence this result. There were no significant differences due to nationality (Kruskal-Wallis chi-squared = 6.7462, df = 3, p-value = 0.08044). In the "8/4" scenario the average willingness to pay was £5 (10% more) across all individuals, with no differences due to income or nationality. Lastly the average for paying a contribution to the community is £12.32 (Figure 5b).

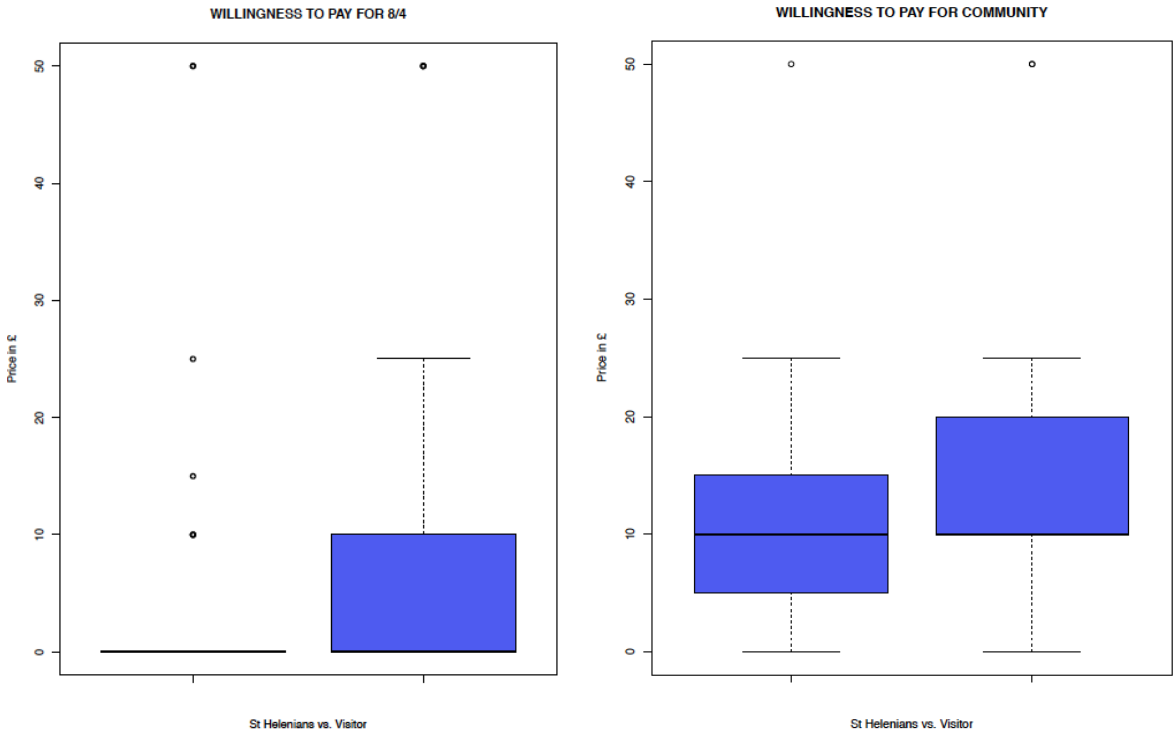

Figure 5: WTP for a) the "8/4" scenario and b) contribution to community education and environmental programs. The Shaded box includes the middle 50% of all responses, the whiskers represent the upper and lower 95% confidence intervals. Outliers are shown as circles.

When considering the three largest survey groups, St Helenians, British and South Africans, we found that St Helenians were willing to give less to the community (with an average donation of £11.11 from all interviewed St Helenians, versus £12.63 for visitors), although these differences were not significant for income level (Kruskal-Wallis chi-squared = 6.9237, df = 4, p-value = 0.14) or by nationality Kruskal-Wallis chi-squared = 4.3225, df = 2, p-value = 0.1152).

Further interrogating the data, we found that, within the "16/8" scenario, those who had previous experience with whale shark tourism were willing to pay a lower value than those who did not have previous experience with whale shark snorkelling (£5.21 with experience N=47, versus £6.89 without N=65), although these values were not significant (Mann-Whitney test W = 961, p-value = 0.2054). For the "8/8" case values (£5.53 with experience versus £7.17 without experience) were also not significant (Mann-Whitney test W = 279.5, p-value = 0.3641) and for the "8/4" case (£3.97 with experience versus £5.74 without experience) values were also not significant (Mann-Whitney test W = 611.5, p-value = 0.4716).

We also analyzed the relationship between snorkelling experience and willingness to pay, however and this showed a different result. Those who have snorkelled before (N=79) are willing to pay on average a sum of £6.67 versus those who have never snorkelled (N=33) paying £5.14 (Mann-Whitney test W= 1288, p-value = 0.7844). For the reduced number of snorkellers scenario the average willingness to pay between those with (£8.04) and without experience (£3.06) was also not significant (Mann-Whitney test W = 507.5, p-value = 0.1163). For the most reduced scenario (e.g. eight on the boat and four in the water) those with snorkelling experience were willing to pay £5.15 versus those without paying £4.20, this difference, too, was also not significant (Mann-Whitney test W = 739, p-value = 0.3389).

While the majority of people thought the whale shark industry was well managed (50/83 responses), we found that there was a strong association between people's opinion on how well managed the whale shark tourism industry and the average willingness to pay. Those who felt that the industry were poorly managed (LIKERT scale 0-4, N=12) were willing to pay less than those who thought the industry was well managed (LIKERT scale 6-10, N=50) with the differences being over £5 (£6.6 versus £1.3, Mann-Whitney test W = 572, p-value = 0.06224).

While we do not have enough data to relate number of previous visits with any difference in WTP, we can look at differences between people who have visited St Helena before and those for whom this is their first time. First time visitors (N=60) are willing to pay £5.66 for the "16/4" case while those who are making a return visit (N=44) are willing to pay £7.61, which is not significant (Mann-Whitney test W = 1341, p-value = 0.8816). For the "8/8" scenario the new visitors are willing to pay £5.41 while returning visitors are willing to pay $13.88, which is also not significant (Mann-Whitney W = 154, p-value = 0.09268). Lastly in the "8/4" scenario the newcomers were willing to pay to pay £3.37 while returning visitors are willing to pay £6.44 (Mann-Whitney W = 770, p-value = 0.5895).

We collected data from 18 individuals who recorded their willingness to pay after experiencing a whale shark snorkelling trip. These 18 individuals had an overwhelmingly positive experience (9.5/10) and of these nine individuals (50%) said that they would be willing to pay an average of £16.42 more after the trip. These same nine individuals were willing to pay an additional £15.00 before the dive, with one individual who was not willing to pay more prior to the dive changing to wanting to pay an additional £10 after the dive. Those same eight individuals were also willing to pay £19.29 and £24.14 more for the "8/8" and "8/4" scenarios, however these sample sizes were too small to calculate statistical significance.

Lastly, for those who were ambivalent about wanting to do more to protect their environment (LIKERT = 5/10, N=15 or 11% of the 135 total people responding), we found a lower willingness to pay with values of £3.46 for the current scenario (versus £6.69), £2.87 for the 8/8 scenario (versus £7.58) and £4.28 (versus £5.20) for the 8/4 scenario. None of these values were significant however (Mann-Whitney W = 784, p-value = 0.7931, W = 225, p-value

= 0.4741 and W = 608, p-value = 0.5656 respectively) in part to the large number of people present in both groups who were not willing to pay more.

Conclusions

Taken together these data suggest a widespread favourable opinion of the marine environment, tourism and a desire to have a sustainable whale shark snorkelling industry as part of an integrated marine based tourism/management plan in St Helena. Moreover, many of those engaged in whale shark tourism are willing to pay more for the experience and even more for a more exclusive experience, however those supplemental costs are not enough to offset the loss of individuals on the tourism boats. This suggests that while there is a desire to have, and to pay for, an eco-friendly approach to tourism other methods than simply limiting the number of participants, or raising the prices should be explored. The results suggest that if prices do have to increase in the future due to increased numbers, then groups who are experienced snorkellers should be targeted ahead of more general tourists, as the former are more likely to accept higher prices.

Qualitatively one of the major issues that was underlying people's' willingness to pay were concerns over the total cost. As one respondent said when asked why they wouldn't be willing to pay more "it would too expensive for a family." Another topic which repeatedly came up was disparities between local and tourist prices with some respondents saying "£50 would make it unaffordable to do regularly. I would accept the increase, however if I wasn't living here." that they "Don't want it to become unaffordable for the local community" "and £50 is well and good for a tourist but Saints can't afford that," Similarly there seemed to be some support for a two tiered payment system from the residents of St Helena with one respondent saying the hypothetical increase in price was "Too expensive for locals. For tourist price ok." or even "As a local this should be free, pending on how many get into the water." and "I should not be paying all this I am a Saint". Lastly several foreign interviewees demonstrated support for these fees to go to increased conservation and scientific research.

Also of interest, whale sharks were named as the second most popular reason for visiting St Helena to scuba dive, although there was a small sample size. As this is not allowed under SHG's environmental policy, it would be prudent to make this clear on promotional material to manage expectations as visitor numbers continue to grow.

The first stakeholder consultation exercise, which identified the need for this assessment, took place in early February 2018. Given the whale shark aggregation peaks between January and March, the survey could not be conducted until 2019, with results coming too late within the NCA project timespan to be presented back to marine tour operators and SHG.

If tourism, and in particular marine wildlife tourism, does continue to grow as anticipated on St Helena, it is will be more important than ever that its existing very high management and operational standards are maintained, and that these are adapted to changing economic and social circumstances. Although preliminary results were presented at the Natural Capital

conference on St Helena in March 2019, it is suggested that the results are presented in a workshop with all key stakeholders to discuss how these findings can be built into management and education programmes and how they can be used to plan for the future. SHG and St Helena National Trust's marine teams would be in a good position to do so.

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Appendix I – Questionnaire

Thank you for taking part in this survey. Please note that you can stop at any point and that all information we collect will be anonymized. The information will be given to St Helena Government to help inform tourism development and marine management on the island, and it will not be passed on to any other organization.

ABOUT YOU

1) How old are you?

15-24 ☐ 25-34 ☐ 15-24 ☐ 35-44 ☐ 45-54 ☐ 55-64 ☐ 65+ ☐

2) What is your nationality? _____

3) How would you define your gender: Male ☐ Female ☐ Other ☐

4) What is your Annual Household Income? We collect this to understand the relationship between how much you earn and how much you are willing to pay for your experience with whale sharks.

Less than £10,000 per year ☐
£10,000- £20,000 per year ☐
£20,000-£40, 000 per year ☐
£40,000-£60,000 per year ☐
£60,000-£80,000 per year ☐
£80,000-£100,000 per year ☐
More than £100,000 per year ☐

YOUR PREVIOUS TOURISM EXPERIENCES

5) Have you snorkeled in the sea before? Yes ☐ No ☐

6) Have you participated in tourism activities before that are specifically centered on natural areas and/or wildlife (e.g. African safari, birdwatching, whale watching)?

Yes ☐ No ☐

7) Have you participated in whale shark tourism before (e.g. snorkeled, dived, or watched from a boat)? Yes ☐ No ☐

8) Have you ever participated in a wildlife encounter ecotourism experience before (e.g. visiting mountain gorillas, whale watching, snorkelling with mantas where the local population benefits and operators are environmentally sensitive)?
Yes ☐ No ☐

9) Have you visited St Helena before? Yes ☐ No ☐

If you answered yes:

a) How many times have you visited? _____

b) When did you first visit St Helena? Month _____Year _____

For the next segment we want to ask you a few questions about your opinions on whale sharks. For the following five questions please tick either the True or False box:

10) Whale sharks are mammals like whales. True ☐ False ☐

11) Whale sharks feed on large open ocean fish like Tuna. True ☐ False ☐

12) Whale sharks are the largest fish in the ocean. True ☐ False ☐

13) Whale sharks are found in all the world's oceans. True ☐ False ☐

14) Whale sharks are usually solitary. True ☐ False ☐

Please rank your agreement from a scale of 0 – 10 (0 strongly disagree, 5 neither agree nor disagree, 10 strongly agree)

15) Whale sharks dislike people in the water with them

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

16) Overall, scientists have a pretty good understanding of whale shark movements

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

17) It is important to protect areas where whale sharks come together.

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

18) It would be acceptable to limit tourist activities if scientist found out they were harmful to the whale sharks.

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

19) The whale sharks tourism around St Helena's is well managed?

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

Before excursion:

20) Currently the fee to view/snorkel with whale sharks is typically £50. Would you be willing to pay £10 more, **making a total of £60,** to swim with the whale sharks?

Yes ☐ No ☐

If yes, would you be willing to **increase this further** by paying: (please tick one)
£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more, would you be willing to increase your payment by: (please tick one)

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice

_____

_____

_____

21) The total number of visitors on a typical trip is 16, with 8 in the water at any one time. Do you feel this is an appropriate number of visitors per a trip? Yes ☐ No ☐

22) If the number of visitors **was reduced by 50%** to **8** visitors per trip **and all 8 in the water at the same time**. Would you be willing to pay £10 more, **making a total of £60**, to have fewer people on the trip? Yes ☐ No ☐

If you said yes, would you be willing to **increase this further** by paying: (please tick one)

£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more for fewer people on the trip, would you be willing to increase your payment by: (please tick one)

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice:

_____

_____

_____

23) If the number of visitors **was reduced by 50%** percent to **8** on the boat and only **4 visitors in the water at one time,** would you be willing to pay £10 more, **making a total of £60**, to have fewer people in the water? Yes ☐ No ☐

If you said yes, would you be willing to **increase this further** by paying (please tick one):

£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more to have fewer people in the water, would you be willing to increase your payment by (please tick one):

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice:

_____

_____

_____

24) Would you be willing to pay **an additional £10** if you knew that it was going to help support the local community, through education and environmental programs?

Yes ☐ No ☐

If you said yes, would you be willing to pay an additional (please tick one):

£20 ☐
£25 ☐
£50 ☐

If you said no, I would not pay an additional £10 if I knew that it was going to help support the local community through education and environmental programs, would you be willing to pay an additional (please tick one):

£10 ☐
£5 ☐
£0 ☐

Please explain why you made your choice:

_____

_____

_____

For the next segment we want to ask you a few questions about your opinions on whale sharks and marine conservation. Please rank your agreement from a scale of 0 – 10 (0 strongly disagree, 5 neither agree nor disagree, 10 strongly agree)

25) Tourism in St Helena is an important part of the economy

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

26) St Helena is a tourist destination because of its marine resources

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

27) (**For tourists only**) I came to St Helena specifically because of the marine environment

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

28) There should be efforts to ensure that, should prices rise to increased tourism, St Helenians will continue to have access to their marine environment

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

29) I think residents of St Helena should have a discounted rate for tourist activities

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

30) St Helena has a responsibility to protect its environment

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

31) A healthy marine environment is important for the economy of St Helena

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

32) I would like to do more to protect the marine environment

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

33) I would like to learn more ways to protect the environment

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

34) There is room to grow tourism in St Helena

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

35) There should be more chances to interact with the whale sharks

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

36) I agree with the code of conduct for swimming with the whale sharks

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

37) I would like to see an area of sea around St Helena proteced, where no human activities are allowed

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

38) The water around St Helena is clean and therefore safe to swim/snorkel/dive in

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

39) Although it costs more, sewage should be treated on land, not pumped out to sea

Strongly disagree					Neither agree nor disagree					Strongly agree
0	1	2	3	4	5	6	7	8	9	10

SURVEY ENDS HERE IF YOU ARE NOT GOING TO DO A FOLLOW-UP INTERVIEW AFTER THE TRIP

After excursion (For those you interview before and after the trip):

40) Did you see whale sharks on your trip today? Yes ☐ No ☐

If yes, how many? _____

41) How would you rank your overall experience (scale from 0-10; 0 being very poor and 10 being excellent)?

Very poor					Average					Excellent
0	1	2	3	4	5	6	7	8	9	10

42) Currently the fee to view/snorkel with whale sharks is typically £50. Would you be willing to pay £10 more, **making a total of £60,** to swim with the whale sharks?

Yes ☐ No ☐

If yes, would you be willing to **increase this further** by paying: (please tick one)
£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more, would you be willing to increase your payment by: (please tick one)

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice

_____

_____

_____

43) The total number of visitors on a typical trip is 16, with 8 in the water at any one time. After your trip today do you still feel this is an appropriate number of visitors?

Yes ☐ No ☐

44) How many visitors were on your boat today? _____

45) Given your experiences today, if the *average* number of visitors was reduced by 50% percent to **8** visitors per trip and **all 8 in the water at the same time**, would you be willing to pay £10 more, **making a total of £60**, to have fewer people on the trip?

If yes, would you be willing to **increase this further** by paying: (please tick one)

£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more, would you be willing to increase your payment by: (please tick one)

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice

_____

_____

_____

46) Given your experiences today, if the number of visitors was reduced by 50% percent to **8** on the boat and only **4 visitors in the water at one time**, would you be willing to pay £10 more, **making a total of £60**, to have fewer people in the water?

Yes ☐ No ☐

If yes, would you be willing to **increase this further** by paying: (please tick one)

£15 more, making a total of £65? ☐
£25 more, making a total of £75? ☐
£35 more, making a total of £85? ☐
£50 more, making a total of £100? ☐

If you said no, I am not willing to pay £10 more to have fewer people in the water, would you be willing to increase your payment by: (please tick one)

£5 more, making a total of £55 ☐
£0 more than the typical current fee ☐

Please explain why you made your choice

_____

_____

_____

47) Would you be willing to **pay an additional £10** if you knew that it was going to help support the local community, through education and environmental programs?

Yes ☐ No ☐

If you said yes, would you be willing to pay an additional (please tick one):

£20 ☐
£25 ☐
£50 ☐

If you said no, I would not pay an additional £10 if I knew that it was going to help support the local community through education and environmental programs, would you be willing to pay an additional (please tick one):

£10 ☐
£5 ☐
£0 ☐

Please explain why you made your choice:

_____

_____

_____

ADDITIONAL QUESTIONS FOR SCUBA DIVING INTERVIEWS

For Tourists and short term visitors (i.e. visiting for work) only

48) Did you come to St Helena specifically to dive? Yes ☐ No ☐

49) Which species/factors were most important to you when you decided to dive on St Helena? (Scale from 0 to 10 where 0 = not important, 5 moderately important, 10 very important)

a) Whale sharks

Not important					Moderately important					Very important
0	1	2	3	4	5	6	7	8	9	10

b) Mantas/devil rays

Not important					Moderately important					Very important
0	1	2	3	4	5	6	7	8	9	10

c) Seeing species which are new to you; e.g. endemic fish species

Not important					Moderately important					Very important
0	1	2	3	4	5	6	7	8	9	10

d) Ship wrecks

Not important					Moderately important					Very important
0	1	2	3	4	5	6	7	8	9	10

e) Underwater scenery

Not important					Moderately important					Very important
0	1	2	3	4	5	6	7	8	9	10

50) Where did you hear about the diving on St Helena?

_____

For people currently living on the island only;

51) Which term best describes you (tick one box):

Not local (born elsewhere but now living in St Helena) ☐
Local (born and raised in St Helena) ☐
Other (please explain). ☐

_____

_____

52) How long have you been living on St Helena? _____

53) Do you belong to the St Helena dive club? Yes ☐ No ☐

54) **Approximately** how often do you go diving (tick one box)?

More than 2 times per week	☐
1-2 times per week	☐
2-3 times per month	☐
Once a month	☐
Less than 6 times per year	☐