

# Sea Turtle Consumption in The Maldives

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## Baa Atoll Survey 2020

### Background

Sea turtle trade, meat and egg consumption commonly occur in nations that have access to nesting beaches or endemic sea turtle populations in their waters. Historically the consumption of meat and eggs would have been a necessary component of a local population's diet. In most areas in the world this has reduced in necessity with the increased availability of other resources acquired through trade and keeping livestock. With six of the seven species of sea turtles now listed as threatened, endangered or critically endangered many nations around the world have banned the consumption and trade sea turtles in an endeavour to conserve the species. Turtle trade and consumption has been banned in the Maldives since 2016 under the Environmental Protection and Preservation Act (Number 4/93) Section (A), though, efforts to legally protect sea turtles began earlier in 1995 with a presidential decree banning catching and killing of any species of sea turtle in Maldives. Despite this noble effort to prevent sea turtle poaching, anecdotal and shared reports have continued to reach the police and environment protection Agency of the Maldives as a regularly occurring practice.

### Baa Atoll

Baa atoll has been registered as a UNESCO World Biosphere Reserve since June 2011. The atoll is frequently visited by tourists with a large number of resorts as well as local island guesthouses (16 and 13 respectfully).

There are 13 inhabited islands in Baa, with a total population of just over fourteen and a half thousand people. Our team set about to collect surveys from each island. The team visited all 13 islands within a 2-week time period in January 2020. This short amount of time meant a strict timeline to be kept on each island and experienced coordination to ensure that we caught island ferries and transfers each day; as sometimes we had to reach two islands in one day!

The populations on each island varied from only a few 100 to 3400 people, this meant that our minimum survey number per island was 30 and our highest number of surveys from the most populated island was 90. Each survey took around 15 to 20 minutes which meant that if one surveyor had 6 surveys complete, it would usually take around 3 hours. However, the survey length was not the time limiting factor, it was finding people to survey that took the most amount of time!

## The Team

Claire Petros – Lead  
Veterinarian and Researcher



Enas Mohamed – Survey Organiser  
and EPA Environmental Analyst



Umna Afeef –  
Architect Student



Ahmed Hadhif- Marine  
Biology Student



Mohamed Hisham –  
Aircraft Engineer

## The Survey

The survey would be split into four parts (Table 1.), covering the participants current awareness of sea turtles, the perception and attitude towards sea turtles and sea turtle conservation, the willingness to change behaviour in order to protect sea turtles and lastly the general information about the participant. The survey is designed to cover all age groups, genders and both local islanders and to a lesser extent, tourists. The survey should take between 20-30 minutes to complete.

Section A	Awareness: Open Questions, replies to be short sentences if answers known.
Section B	Perception and Attitude towards Sea Turtles and Sea Turtle Conservation. Statements requiring an indication of level of agreement according to a provided scale (Strongly Agree, Agree, Neither Agree nor Disagree, Disagree, Strongly Disagree) and a selection of closed-ending questions.
Section C	Willingness towards Sea Turtle Conservation. A selection of closed-ending questions. (Yes, No or Unknown).
Section D	General Information about the participant. For example, age, household income, occupation, highest level of education. If a tourist, nationality, number of times visited, reasons for visiting, etc.

Table 1. Format of the questionnaire

## The Route Taken to the Islands of Baa



Our first island and the start of the survey was Thulaadhoo (2981\*), from here we moved on to Hithadhoo (1387), Eydafushi (3354 – the atoll’s Capital), Maalhos (728), Dharavandhoo (1153), Dhonfanu (557), Kihadhoo (498), Kamadhoo (536), Kudarikulu (639), Kendhoo (1316), Goidhoo (806), Fulhadhoo (307) and spent the last day on Fehendhoo (299).

\*Population numbers from the National Bureau of Statistics: Maldives 2014 Census and 2018 Registered Population.



## Tonti's Contemplations from the Survey

“The findings from the survey have reaffirmed how widespread poaching still is on local islands, especially among the youth. Understanding the hunting methodologies and demographics will also help prepare more targeted awareness materials, as well as a framework for penalisation by ranking the offences” Enas Mohamed.



Above: Tonti engaging with the older generation on the island, the woman on the left is traditionally weaving palm tree leaves for roof materials, which is sold to resorts.

Interestingly many of the older generation admitted eating turtle regularly when they were younger, and it had been a much more common sight. However, the older age groups were much more likely to have stopped after the ban in 2016. It was common to hear that they would eat it if it were available, but they wouldn't actively request it.

This insight is very interesting as it is often thought of as a cultural source of food, this may not be the case, as the older generation are much less likely to eat turtle meat nowadays.

- We found the age group between 17 – 25 to be involved in the poaching and eating of meat, as opposed to the older generations.



## Hadhif's Contemplations from the Survey



Hadif questioning a young girl after school, she is sitting in a Joali, a traditional Maldivian rope chair that is made from netting and metal piping (it used to be made from Coconut rope and had a wooden frame).

*"It is never fishermen who hunt turtles, just the island youth"*. Hadhif was surprised to learn that from his conversations with the fishermen and older community it was very unlikely for a turtle to be caught as a product of by-catch, and the fishermen wouldn't actively hunt for turtles, but in fact it was often the unemployed youth of the island that were involved in the illegal activity.

*"Some people just don't like eating turtle"*. Just as a preference to be vegetarian or vegan, some Maldivians who had tried turtle do not like the taste, or texture and would avoid eating it.

*"People from Eydafushi would use turtle meat as medicine"*. On one or two of the islands we heard rumours that traditionally some of the turtle meat had been used in local medicine (for example, drinking turtle oil twice a day for three days would cure a sore throat). This didn't seem to be the case nowadays, and not commercially available since the ban.

*"Almost all the hunters are on board with the protection of turtles (they recognise there are fewer of them) but they are unhappy with the current laws because habitat destruction still occurs on a large scale by government projects"*. This relates to the current buying and selling of land to resorts and building water villas on turtle nesting beaches.

The local community often find that their nearby 'picnic islands' have been sold to build a resort. They are also quick to point out that they are nesting beaches too. Their argument suggests that they know their role of poaching is reducing numbers of turtles, but their government isn't protecting the beaches where they nest so are equally at fault.

## Hisham's Contemplations from the Survey



Hisham is surveying a female shopkeeper, just one of the jobs that can be found living on a local island.

“Keeping turtle hatchlings as pets used to be very common”. Hisham and the team heard several stories of turtle hatchlings being kept as pets by many young children and families. They were often kept in small tanks, more often than not in freshwater and kept until they were deemed large enough to be released. It was quite commonly practiced on these local islands, and we even had some reports of this still occurring.

Tonti and Hisham found schoolteachers after work in the evening to survey. Most teachers were born on the island itself and have left the island to attend college and University.

## Tourism vs. Local Island

“The topic of resort construction and habitat destruction was a common theme when asked about current feelings with regard to the protection of turtles. Many uninhabited islands had been well known to be nesting sites for seabirds and sea turtles amongst the local islanders. Since the construction of the resorts on these islands, fewer turtles were seen to be nesting in the area and seabirds were no longer using the beaches to nest on”.

- There are general feelings that Tourism succeeds current Conservation efforts.







*“The difference in attitudes between the islands was very surprising. On Thulaadhoo for example, everyone openly talked about regularly eating turtle and hunting and not being fazed by it, whereas on Maalhos people were more reserved and didn’t really eat it anymore”.*

Cultural differences between neighboring islands, located in some cases a mere 1/2km away, was truly fascinating. Islands nearer the capital, Eydafushi, were far less likely to have eaten sea turtle meat or known about it being caught on their islands. There were fewer reports of poaching incidents, (both turtles and nests), and even the attitudes regarding protecting turtles differed between islands.

This young lady being surveyed was in her twenties and was wearing a full hijab and in a conservative black colour.

Hearing the perspectives from the young women on the islands was very informative. None of the women interviewed were involved in poaching of sea turtles. However, the majority had eaten or had been involved in preparing turtle meat or had seen it being prepared. The younger girls were less likely to eat it and were well informed of their conservation status too. There had been local NGO-run education classes to many of the schools regarding Maldivian Megafauna. This was certainly encouraging to hear!

*“While a lot of people are aware of the endangerment of turtles, some still had no intention of breaking the habit of eating turtle meat, as it is so deeply rooted in their lifestyle.”*

Rather upsettingly, despite being very open about observing fewer turtles, the desire to protect or preserve them by stopping poaching was often unquestionable.





## Disturbing Findings

Sadly, poachers that were surveyed were more than happy to discuss their methods of capturing turtles, and how the meat was prepared and even how often and when they go for poaching trips. One particular young man shared the following photos with the team. The last photo is how the meat is prepared, and it is mostly the fat on the green turtle that is considered a delicacy.



One youth with three adult green sea turtles following a turtle poaching event. Two recently harvested turtle remains, here you can see that the majority of turtle in some cases isn't taken, and it the fat has been taken away as it is the delicacy.

Sea turtle poaching occurs before, during and after the full moon. This can be for between 2-4 days and occurs each month on the island at Thulaadhoo. This is where we found the highest number of poachers, but also the majority of those spoken to on the island regularly would eat turtle meat. We were also told how Maldivians from other local islands and atolls would visit during the full moon to take part in these poaching events. This information had not been known before, and can better direct future focus groups with the poachers to find out perhaps how many turtles are regularly being caught, how far they are traveling to catch them and how often they are joined by non-local islanders to take part in the poaching events.





## Outcomes following the study involving the Environment Protection Agency

“The survey has provided invaluable insight, and some momentum to involve communities in conservation with the help of NGOs and other interested parties, which could help curb poaching on the islands.

The island of R.Vandhoo, where the Northern regional waste management centre is being operated has been identified as a nesting ground where regular poaching occurs. An MoU between EPA, Ministry of Environment, and Waste Management Cooperation (WAMCO) is underway to monitor nesting and poaching in the island, and the nearby islands.

The Ministry of Environment has agreed to fund the project, including the awareness sessions and training people for long term nesting monitoring, and the possible use of wildlife cameras to patrol the area.

Overall, the findings from the survey will play a large role in the upcoming sea turtle framework to be produced in a similar way to the previous Sea Turtle Watch Program conducted by Marine Research Centre in 2015.” Enas Mohamed, Environmental Analyst, EPA.



The entire team would like to thank OceanCare and its wonderful supporters and donors to enable this survey to be carried out, with special thanks to Stefanie, from Stiftung Pfoten und Meer who has been closely supporting this work in the Maldives.

This is the first of its kind in the Maldives and the data will be further analysed to give us a better insight into how islands differ on how frequently turtles are being eaten, or poached, but also a better understanding of current attitudes regarding the concern for their welfare and conservation, this will enable us to create a targeted approach to protect sea turtles in this country.

“What really stood out, was that there is a lot more work we still can do to prevent poaching” Hadhif Ahmed.