



# AFRICAN SEA TURTLE NEWSLETTER

Aerial photo of Fundação Maio Biodiversidade's (FMB) celebrations at the end of the nesting season on Maio Island, Cape Verde.

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## The Tradition of Take: Sea Turtle Consumption in Dovela, Mozambique

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Five species of sea turtle are found in Mozambican waters. All have been protected by national laws since 1965. Despite national protection, the illegal take of sea turtles is widespread and usually goes unpunished (Louro *et al.* 2006). Information on quantities and motives for take, cultural significance, and geographic hotspots are urgently needed to inform conservation and management actions.

Here we present information on the traditional take and use of sea turtles as revealed by semi-structured interviews with artisanal fishers from Dovela village, Inharrime, in southern Mozambique (Fig. 1).

**The turtles of Dovela:** Nesting along this coast occurs from November to February each year and is dominated by loggerhead turtles (*Caretta caretta*), although some leatherback (*Dermochelys coriacea*) nesting does occur. In this region and on the rest of the turtle nesting beaches of the Inhambane Province, nests are scarce. In the 2014/2015 nesting season, four nests were recorded (Fernandes *et al.* 2015). However, anecdotal reports from both fishers and expatriate residents in the area indicate that nesting effort was greater one to two decades ago. In addition to low nesting rates, most nests do not complete a full incubation period as they are frequently raided for their eggs.

Evidence (carapaces and bones) of illegal take can be detected along the provincial coast all year round, suggesting that illegal take is not restricted to emerging females or



Figure 1: Study site, Dovela village located in southern Mozambique.

their eggs. In light of a possible decrease in nesting turtle populations and a lack of quantitative historical data on nesting activity, we sought to document (a) traditional beliefs and values relating to sea turtles, (b) whether these cultural values are still held, and (c) whether they are a driver of illegal take. Information was gathered through interviews with 10 key people, all local fishers and residents of Dovela. The interviewees were

identified using the snowball sampling technique (Goodman 1961).



*Photo: Sharron Basson*

**A typical coastal village, Dovelá:** Dovelá is a small coastal village, located approximately 400 km north of the nation's capital, Maputo. From the main highway (EN1) it is a further 10 km along dirt tracks towards the ocean before the village is reached. The village is situated around an inland closed coastal lagoon system that runs parallel to the coast. Within the village there is a primary school and one small ecotourism lodge. The nearest town, Inharrime, is 20 km to the south, once back on the EN1. Throughout the Province, 50-70% of the population lives below the poverty line (Republic of Mozambique Ministry of Planning and Development 2010). Literacy levels reflect these statistics. In rural areas and amongst females, the rates are even higher. Although the national language is Portuguese, a local dialect M'Chope is more commonly spoken in the village.

**The prevalence of take:** All interviewed fishers were aware of or had partaken in the consumption of sea turtle meat or eggs. However, most (n= 7) also indicated that turtle take and consumption was never a regular activity (in past or present times). Interviewed fishers referred to take as a traditional

activity, which involved a ceremony before the meat could be cut up, divided between people, and then cooked and eaten. Some of the older interviewees had not consumed turtle meat since they were children, or since Portuguese colonial times (Mozambique declared independence in 1975). They also promptly declared that their children had never eaten turtle meat.



*Photo: Jess Williams*

**Preferences for meat:** A common theme was the fact that not everyone likes turtle meat. *"Traditionally, people here eat turtles and I don't know why that is because fish is much better and it does not smell like the turtle's meat does. I have no clue why it is a tradition to eat turtle!"* *"Our families eat rice and cassava leaves like everyone else. If we catch crayfish we sell it, as it has the best value. If we eat meat, we eat fish or mussels. Sometimes if I do not manage to catch a fish from the ocean, I will buy a fish caught from the lake."*

**Decreasing trends:** The interviewees noted decreasing trends regarding both the consumption of turtles and the decline in numbers of nesting females. *"Years ago people used to eat turtles, but at the same time, back then there were more turtles coming to nest, at least 20 per year and I would also say more species than we see today."*

**For sale or consumption?:** Several references were made to suggest that there is some cultural taboo against the sale of turtle meat. *“The turtle is a gift from God, we cannot sell it”. “Here, nobody sells the turtles, their meat has to be eaten, we can’t sell it. It’s like the mussels, you eat them, you don’t sell them.”*

**The traditional ceremony:** The interviewed fishers revealed several versions of a traditional ceremony relating to sea turtles and their harvest. One fisher recounted, *“My grandfather was the chief of the village so when someone caught a turtle, he had half of the animal.”* He explained that the head of the turtle had to go to the “regulo” (chief of the greater area) but half of the turtle was for the chief. A front flipper was allocated to the fisher who caught it, the other front flipper and a hind flipper were for the leader, and the rest was divided by the chief among those who had helped the catch. The leader had to walk to the beach each time a turtle was caught and before dividing the pieces of the turtle he conducted a small ceremony with a machete “patting” on the shell of the dead turtle and saying something like *“Welcome, our ancestors gave this to us. Others have given this to us to sustain us.”* He recalled that the “regulo” at that time did not eat the turtle because he did not like it, but he used to give it to the wise men, the senior members around him.

**Thanking our ancestors and offering to the ocean:** Another of the interviewed fishers told the story of how he knew of traditions regarding turtles because when he was growing up his father was the village chief. He described two parts to the traditional ceremony related to the hunting of turtles. When someone caught a turtle, this information had to be disclosed to the chief. The chief then conducted the first part of the ceremony before going to the beach to see the captured animal. The chief performed a small ceremony at home where he asked the ancestors to go with him to the beach to help guide him when he cut the

turtle. With this calling to the ancestors he performed a small prayer. Once at the beach, a small piece of the turtle meat, half the size of a hand, needed to be cut and grilled, and then a prayer was done. The prayer was to thank the ancestors for the gift of the turtle and to ask them to send more turtles. After this was completed, the piece of grilled meat was put at the tide line and left until the ocean took it away.



*Photo: Sharon Basson.*

**Cutting up the catch:** The turtle was cut with a special blade, similar to a machete. The plastron was cut open laterally into halves. Then the front and back flippers were cut off. The head, the heart and one of the rear flippers along with the meat around the rear flipper joint were transported to the “regulo.” The transporters were given ‘tontonte’ (local alcohol) or 50 MZN (US\$1) to deliver this to the “regulo.” A front flipper was given to the village chief and the other to the fisher who killed the turtle. The final hind flipper was shared with all the others who helped to cut up the turtle. The rest of the turtle, including anything that was left from its interior, was for the village. The meat was cooked up at the chief’s house and eaten with the people. In addition to the offering to the ocean, another piece of the meat was grilled and given to the grandchildren of the chief, (even if his children were adults at the time). It was important that the chief’s grandchildren ate the meat. *“For each and every turtle, the tradition was the same. My father, the chief,*

*had to go to the beach each time a turtle was caught."*

**A garden offering:** An alternative version of the ceremony was described again in two parts. First, the chief would send someone to the beach when the news had been received of a turtle being caught. The chief's assistant would open and 'peel' the turtle carcass. A wooden stick was specially cut and used to mount the turtle pieces and then it was carried back to the chief's house. The first piece of meat was grilled at the beach and given back to the sea in conjunction with some prayers to the members of their families who had died a long time ago. Once back at the chief's house, another piece of the meat was cut, grilled, and then mounted on the stick that was used to transport the turtle from the beach. This stick with the grilled meat was placed in a special area of the chief's garden, allocated as a prayer area. The offering was not allowed to be touched by anyone and it remained in the garden until it had rotted away.

**A loss of tradition, a loss of turtles:** Interviewed fishers remarked that the traditional ceremonies surrounding the hunting and consumption of turtles were no longer occurring. *"Catching a turtle was not so often, it was more than today but not so often. Today, there is no more tradition so there are less turtles coming to nest. Today, no one knows how to pray properly, the content has been forgotten."* Some of the interviewed fishers attributed the decline in numbers of nesting turtles to the lack of traditional values and ceremonies occurring. *"Today, there are still many turtles in the water but they don't get out of the sea because they are not called anymore. There is no more tradition to ask them to get out of the water. They are not called, so they don't get out, that's all!"*

While physical evidence of illegal take is widespread and can be found year-round, the interviewees indicated that the traditional take of turtles and ceremonies to accompany such activities are occurring less frequently.

Similarly, a loss of tradition surrounding turtle take has also been described in other parts of the Western Indian Ocean region (Frontier Madagascar 2003). Our interview responses show that while traditional values may have once been a driver for take, it is not likely to be the main motive for take in the present day in Dovelá village. However, Mozambique's coastline extends almost 2,700 km and has a rich cultural diversity. The prominence and specifics of traditions regarding turtles are likely to vary amongst the cultures of local people. Although our interviews indicated that the frequency of capture and consumption is low in Dovelá, these practices still occur in other places.

Traditional take and cultural significance are not commonly viewed as compatible values for achieving effective species conservation. More consideration of the cultural significance of turtle take is needed with regards to how to account for such traditional behaviours within western-value based species management frameworks. Reflecting on the limited conservation success (where effective protection has been restricted to the southern nesting beaches and near-shore waters of the Ponta Do Ouro Marine Partial Reserve) that has been accomplished in Mozambique, despite more than fifty years of marine turtle specific legislation, suggests that a new approach to marine turtle conservation and management in Mozambique may be required (Fernandes *et al.* 2015).

Given the clandestine and sensitive nature of discussing the hunting of sea turtles, we must acknowledge that these responses present part of the narrative of traditional turtle take, but perhaps not the whole story. Our results are likely to be limited by methodological constraints such as language barriers and interviewer effects, and the concern for the fishers' responses implicating them in a way that might force them into livelihood changes. However, this is the first time that traditional anecdotes regarding sea turtle take and use have been documented in Mozambique and we believe that this work will

help convey the significance of understanding and documenting the ethnography of an area before implementing conservation actions, given its likely influence in the success or failure of such efforts.

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