

Project Update: May 2021

Objectives:

1. Gathering new information on the poorly monitored local cetacean populations in order to understand the threats posed by interactions with fisheries.

Fully Achieved

The first half of the project focused on the project team familiarising themselves with the project landscape. In doing this they chanced upon a lot of information on cetaceans which has determined the areas to prioritise for streamlined action.

2. Formation of a Cetacean Network and creating awareness on the significance of cetacean conservation to fishing and marine life.

Fully achieved

The project team focused on the formation of the cetacean network during the second quarter. Volunteers from coastal communities were joined the network online platform and were responsible for reporting two major cetacean stranding during the period.

Difficulties:

The project team did not witness any major challenges during the second quarter of project implementation but rather identified opportunities to encourage cetacean conservation in Ghana. A major stranding of 60 dolphins during the final month of the second quarter, skewed the project plan with a lot of focus on the Axim landscape where this stranding took place. The project team focused on gathering information, analysing the available data, and created awareness on the right community reaction to cetacean stranding. Annex 1 of this document is a report on this activity.

Outcomes so far:

From the 10 communities visited during the first quarter, five were prioritised - Keta, Akplamanya, Axim, Winneba and Jamestown. Regular visits were made to the prioritised fish landing sites.

Eighteen locals, including 13 fishermen and five community leaders volunteered to be a part of the cetacean network. Members of the network reported two cetacean stranding during these quarter. Annexes 1 and 2 provide reports and pictures on the stranding.

Community involvement:

Until now, about 300 locals, mostly fishermen, have been engaged from the fish landing communities. Unlike in the first quarter where fishermen were mostly available for interview because it coincided with the close season and COVID 19 curtailing measures, this time fishermen were mostly busy therefore most of the interactions was with community leaders, coastal NGOs, fisheries commission, and fishmongers. The list of locals engaged can be found in the first quarter report. This has not been updated this quarter because we continued working with the locals who were familiar with us and could confide in our team. The quarter also our reports reaching over three thousand people on our Facebook and websites.

Planned activities:

In the next 3 months, the project team will continue visiting the five selected fish landing sites twice each month to monitor for cetacean sighting. Visits will include awareness creation on the significance of cetacean conservation to the fishing industry and best fishing practices. The team will also administer questionnaires to obtain previously existing information on cetacean sighting in the project communities. The Cetacean Network will reach out to more locals and encourage them to report sighting.

Sharing results:

We reported the first sighting involving a humpback dolphin on our Facebook and YouTube channels. Ghana Marine and Freshwater Watch on Facebook and Mike Ayeh. These same channels were used in reporting the major stranding at Axim. These reports reached over 3000 people on these platforms. We will continue using these platforms in addition to conference presentations and articles to share the project results. Below are links to the various reports.

<https://www.facebook.com/Ghana-Marine-and-Freshwater-Watch-105635707981870>

<https://www.youtube.com/channel/UCTMSNNDIMZjOu7PeHHfjXlg>

<https://mohammedarmani.com/2021/04/06/on-the-mega-stranding-of-dolphins-close-to-axim-ghana/>

Promotion and publicity:

There was no use of The Rufford Foundation logo during the second quarter of the project implementation. Arrangements will be made to meet the requirement for future use.

Team:

Cosmos Acquah: Resides at Benyin in the Western Coast of Ghana. He continues to visit the coastal communities in the Western and Central regions of Ghana to interact with locals and encourage them to report sightings of cetaceans and any other rare species they identify at sea or on their coast. He was a major reporter on the melon headed stranded and was interviewed by local radio stations, educating locals on best ways to manage cetacean stranding.

Daniel Atsu: A fisherman and a cetacean conservationist from the Volta region of Ghana and stationed at the southern eastern coast of Ghana where he plies his trade. He usually engages colleague fishermen on the significance of cetaceans to the fishing and the need for fishermen to support cetacean conservation approaches. He has added eight fishermen to the Cetacean Network. He is responsible for the reporting of two stranding of humpback whales at Keta and Akplamanya coastal communities.

Comments:

Cetacean conservation reached universal conservation groups through our Facebook platform. Numerous individuals and groups have contacted us for information on cetaceans and other marine mammals.

ANNEX 1: Reporting on Cetacean Sightings



Fig 1: Locals pulling stranded alive dolphins out of sea.

Mike Ayeh's published report on the mega stranding of dolphins close to Axim:

If you are reading this article, you might have heard of the dolphin stranding close to Axim on the 4th April 2021. You might also have read about the washing ashore of thousands of dead fish at Osu, a suburb of Accra a week before the dolphin stranding. If you have much more interest in the ocean, you might have seen the recent Netflix documentary 'Seaspiracy', highlighting irregularities in the commercial fishing industry globally. The big question you might be asking yourself by now is, are there any relation between these events. Follow my thread as I breakdown the series of events and what the causes and implications might be.

Happening:

Around 5 am on the 4th April 2021, a group of fishermen returning from sea encountered over 60 very dark coloured dolphins stranded close to shore, near Axim (4.8665° N, 2.2409° W). The sighting of dolphins is common during the Easter period because there is always a high shoal of small fishes close to shore. Once in a couple of years, some dolphins get stranded but never in recorded history has over 60 dolphins of the same species been stranded along the coast of Ghana. To the local fishermen, this was a gift from nature, and they were determined to capture as many as they could. They tied the tail fin of these stranded dolphins with fishing nets and pulled them towards shore, while others parked the dolphins into trucks. Authorities from the fisheries commission arrived at the scene about 4 hours later. By then, over 30 dolphins had been captured and exported off the shore. Investigations with

police revealed the location of the captured dolphins and were confiscated, by which time all 30 were dead. Those that were still alive on the shore, numbering 21, were guided back to sea. In all, 37 dead dolphins were recovered from local fishermen and buried by authorities.



Fig 2: Locals capturing live stranded dolphin by the tail and loading them into trucks.

What we know:

The dolphin species encountered was the melon-headed whale (*Peponocephalia electra*) aka Electra dolphin, little killer whale, or many-toothed blackfish. This is a small- to medium-sized toothed whale of the oceanic dolphin family (Delphinidae). They are widely distributed throughout deep tropical/subtropical waters worldwide. They are found near shore mostly around oceanic islands, such as Hawaii, French Polynesia, and the Philippines. Their diet includes pelagic and mesopelagic squid, small fishes, and crustaceans. They are a highly social species and usually travel and forage in large groups of 100 – 500. Melon-headed whales forage at night and rest during the early hours of the morning. Females reach sexual maturity by age seven, giving birth to one offspring every 3-4 years after a 12-month gestation period. They are studied to calve throughout the year and stranding is known to normally occurred in huge numbers due to their gregarious nature. Previously, large number of strandings were recorded in Hawaii, Japan, the Philippines, northern Australia, Madagascar, Brazil, and Cape Verde Islands. This was the first recorded high numbered stranding along the coast of mainland West Africa.

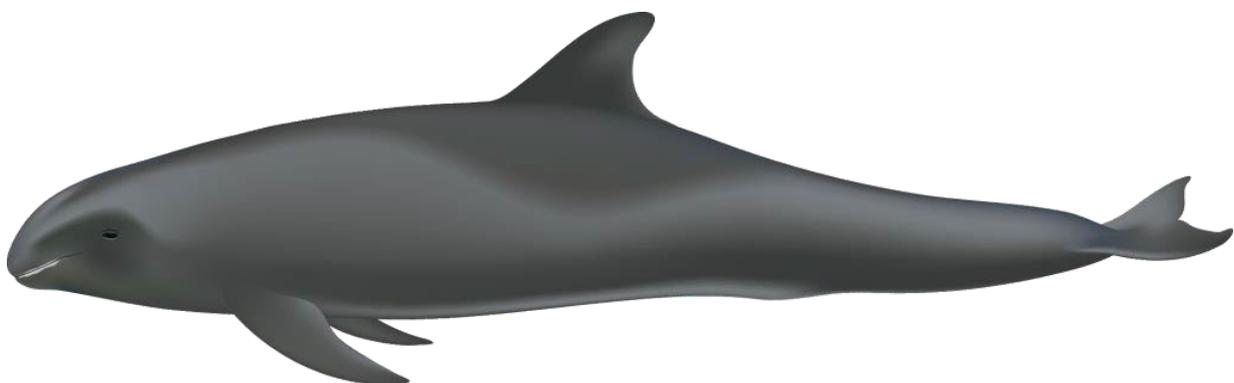


Fig 3: illustrated picture of the melon-headed whale obtained from the Marine Mammal Science Education Committee

What we do not know:

The major question is what the main cause of this stranding could be. There is no definite answer to such marine occurrences because little is done to monitor marine life globally. Had the dolphins washed ashore dead, then the killing of cetaceans at sea using sophisticated fishing devices, as shown in the 'Seaspiracy' documentary, could be a cause. Alive stranded dolphins leave us with two strong hypotheses.

- Melon-headed whales are vulnerable to noise, such as those associated with military sonar activities, seismic surveys, and high-power multi-beam echosounder operations. They are very sensitive to mid-frequency active sonar (1 to 10 kHz) used in military operations and other types of sonar activities like oil and gas exploration. If such activity has happened recently, it could be the cause of stranding.
- The other more probable hypothesis is related to the social behaviour of melon-headed dolphins. They might have been following the shoal of fish abundant close to shore at this period, as witnessed at Osu weeks ago, and missed the tides. They might be caught in the low tides and displaced to land unexpectedly, restricting their movement.



Going forward:

None of the two hypotheses have yet been proven. Information on military activities and seismic survey is always hidden from the public. No data have yet been obtained on such activities at sea yet. To assess the second hypotheses, satellite data on recent tides is being analysed. Even though this occurrence is not common, this has been expected in the marine science society due to the changing temperature of the ocean caused by climate change. Until the cause is known, the focus is on sensitising locals on the need to avoid feeding on stranded marine mammals that are higher up the food chain and could be bioaccumulate for mercury, PCBs and microplastics. Melon-headed dolphins are currently listed as Least Concern on the IUCN Red List but there is no information on current levels of bycatch and commercial hunting, therefore the potential effects of such stranding their populations are undetermined. There is the need to keep studying these species and sensitising locals along the global coast to avoid such a disastrous incident in future.

ANNEX 2: Pictures Second Quarter Activities and Reporting.



Fig 1: Dead and decaying Humpback whale on the shores of a coastal community could Goi (5.790726, 0.413344) after four days of stranding. Picture courtesy; Joseph Nettey - a resident of Goi.



Fig 2: Locals at Axim, loading electro dolphin from stranding to the market.