

## Gastric Obstruction in Stranded Green Turtle (*Chelonia mydas*) in Paloh, Kalimantan Barat at February, 9th 2018

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### INTRODUCTION

Marine debris has been being global isu for years. It can give negative impact to the animal in marine environment. One of Indonesian waters who has a serious problem with marine debris is Paloh, West Kalimantan. Mineral bottles that stranded in Paloh beach is not Indonesia production, it printed Malaysia, Singapore, Philippines, Thailand and China label (Satari, S., 2014). In other word debris that be found in Paloh at least comes from 5 different countries. Paloh waters also known as home for 4 species of sea turtle, one of them is Green Turtle (*Chelonia mydas*). Scuyler (2014) said the probability of green sea turtle to ingest marine debris has increased significantly for more than century, he also said that plastic especially soft plastic is the most common debris found in sea digestive tract (96.8%).

### CASE REPORT

February, 9th 2018 has reported a juvenile Green Sea Turtle with CCL 38 cm and CCW 35.5 cm found stranded in Paloh's beach, West Kalimantan with weak condition, minimum movement response, and buoyancy disorder. The sunken plastron shape indicates that the sea turtle had moderate-severe kaheksia. Based on the signalment smoothed food and multi-vitamin is given to recover the nutrition state and antibiotic also given to solve the buoyancy problem. On February, 19th 2018 the sea turtle found die after 9 days in treatment because of its condition that getting worse. Necropsy is then performed to look at pathological changes that can help diagnosis process to identify the cause of death.

### RESULT AND DISCUSSION

The Green Sea Turtle in this case had kaheksia and malnutrition characterized by sunken plastron shape, atrophy of extremities muscles and minimum under skin fat tissue. Apart of that, based on general inspection result shown the death is not caused by external trauma because the absence of external lesion. In the digestive tract found that the food who given on the treatment

process is accumulated in stomach and cannot be found in other digestive tract (from duodenum to colon). Non-feed materials found (plastic clump) sized 5x3 cm, solid consistency and composed of small pieces of plastic with varying size (1-10cm) found at the end of the stomach. Shells found in colon sized between 1-3 cm. Non-feed material that found at the end of stomach allegedly has resulted gastrointestinal (GI) blockages which has affected the disruption of nutrient absorption. Plastic that has been ingested by sea turtle related to the occurrence of malnutrition and death caused by GI blockages or perforation[] (Kühn et al., 2015; McCauley and Bjørndal, 1999; Nelms et al., 2015; Santos et al., 2015; Clukey et al., 2017;). Even the small pieces of plastic can blockages the digestive system if ingested with wrong orientation, and if the digestive system completely blockages, it may cause death on sea turtles[] (Bjørndal et al. 1994; Khun et al., 2015).

Furthermore according to necropsy result macroscopy pathology changes has been found on the sea turtle internal organs. The macroscopy pathology that has been found is white-yellowish exudate on lungs, lungs parenchyma has soft consistency (Severe fibrinous pneumonia diffuse, chronic). All of the pathological change indicates chronic infection on lungs which has been going for a long time. Other than that an erosion lesion also found on inner mouth (Necrotizing gingivitis multifocal-coalescing, chronic), red spots on stomach (Hemorrhagic gastritis multifocal, acute), red spots on intestine tract (Hemorrhagic enteritis multifocal, acute), red spot with oval shape on urinary bladder (Hemorrhagic cystitis focal, acute).

Even plastic has been reported can cause the death on sea turtles, the main cause of death in sea turtle who has stranded on Paloh's beach couldn't be further identified because of the necropsy was not accompanied by laboratory test. Distances from the accident site to the forensic laboratory and the unavailability of the transport media became the main factor author could not explain further the cause of death on this turtles.

## CONCLUSION

According to the necroscopy result that had been conducted can be seen that the non-feed materials ingested by the sea turtle has resulted in obstruction who can lead to death. This obstruction then causes digestive failure and malnutrition that getting worse due to the absence of food absorbed in the small intestine. Debris has given negative impact on sea turtle, but unfortunately research related to the impact of marine debris on sea turtle health in Indonesia is still limited, so further research need to be done. In addition to being able to provide a more appropriate treatment, diagnoses using imaging diagnostic tool is needed.

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