

TRACING THE FOOTSTEP OF TUNTONG LAUT (*Batagur borneonsis*) IN PUSONG CIUM BEACH

(A Note of Field Observation)

By: Joko Guntoro *

The night was late, early morning. My watch shows at around 1:37 am. The sky was dark, there are only a few stars which reveal its rays from the beach. There were no fishing activities at sea. From the beach just seen some light of fishing boat that put the anchor in the estuary. Not much of fishing activity as like as a fishing boat. Maybe they were still resting because the high waves in the sea.

A moment later, a large shell-shaped object seen emerging from the waves ripple on the shoreline and moved up slowly to the beach. Motion is very slow, with occasional stops, as showed profound caution against the surrounding environment. They continues, step by step, to move toward the higher sandy beach until finally a long silence in the area that overgrown by plants. It takes about eight minutes for her to reach the area from the beach.

Then, came the sound *srek srek-srek*, a sound of beach sand that was excavated. Berselang beberapa saat, terdengar suara benda jatuh, terdengar seperti bunyi *tung-tong* . Some time ago, there was a sounds of falling body such as *tung-tong*. The voice like that might cause the people here call it Tuntong. In a scientific name, this animal called *Batagur borneonsis*. *Tung* sound is when the egg will come out of the anus. While the *tong* is a sound when the egg fell into the sand pit that had been prepared by them to spawn. In a clutch, usually contains between twelve until eighteen of eggs.

After laying their eggs, using their legs, they buried their eggs with sand, a pile after pile, until the clutch is flushed with the sand. Silence for a moment, then Tuntong was moving back to shore, together with the waves break, swim and slowly lost at sea.

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However, Tuntong laut did not return to the sea as sea turtle's behavior. They returned to rivers or drainage area of mangrove forest which has low level of salinity. Here is a place where he lives, foraging, mating, breeding and playing its role as one of the chain of mangrove forest ecosystem. Toward dawn, around 04.00 am, no more Tuntong laut "landed" to nesting.. If they want to laying their eggs, they returned to the beach in the estuary area in the next season. And so on.

Tuntong laut (Painted Terrapin / *Batagur borneensis*) lay eggs once a year. Nesting season started from October to January, although November to December are peak periods where in this two months, the number Tuntong that nesting is higher than any other month. To nesting, Tuntong require sandy beaches located around the estuary. They nesting location, usually, is also a nesting place for green turtle (*Chelonia mydas*). This is a different from other species of brackish water turtle – Tuntong sungai (*Batagur affinis*) - that also makes the mangrove area as habitat. Tuntong sungai (*Batagur affinis*) nesting on the sandy beach on the river banks which has low level of salinity.

Survival Challenges

Maybe, there are no more stories about the hunting for individuals and eggs in Aceh Tamiang Regency now, particularly in Seruway and Bendahara sub-district, as happened in four to five years ago. In this region, especially in Pusong Cium and Kuala Genting, about four years ago, many peoples hunting Tuntong laut, the individu and eggs, for sale. The central market is is Medan City, the third biggest city in Indonesia. Orders come from Medan routinely. For individu sold at a price from twenty until thirty thousand Indonesia rupiah. Meanwhile, grain price per egg is about five to six thousand Indonesia rupiah. Once the story of several local fishermen - such as Sanusi (52 years old man), Atok (63 years old), both are residents of village Sungai Kurok III; and Datuk Laksamana (51 years old), traditional leader for sea management - who helped field observations that the author and Lembaga Satucita was carried out.

Although there is no "hunting and trading" currently, its impact has been felt by people. Recently, it is reallyy difficult to find Tuntong laut in Pusong Cium and

surrounding areas. This is very different compared to the situation several years ago. When the author conducted field observations in Pusong Cium and surrounding beaches since the period October 2009 through February 2010, assisted by some local residents, only could to save the one hundred and twenty one of eggs to incubated. Some of the eggs had to be purchased from local people at a price of IDR 10.000/egg, to later incubated into hatchlings. This purchasing is more important than let it be eaten by people *tengkulik* (a kind of jam) or into other dishes. Then the hatchlings is released to their original habitat.

From the total 121 eggs were incubated in the process of semi-natural by using foam boxes, only as much as 59 which hatched successfully and released to estuaries. The rest was not successful to hatched due to, may be, it was purchased from local people more than of two until three days after they collected the eggs from the beaches. This condition is possible to makes the structure of the eggs become unhealthy and fail into an embryo.

Meanwhile, further question is how many the number of adults? If we account the adult found in both of Seruway and Bendahara sub-district since April 2009 until February 2010, it is only found as many as 12 individuals. This small number found can give to us two initial conclusions (interpretations). *First*, the living of Tuntong laut is spent under water making it difficult to be monitored and individual discovered in large quantities. *Second*, the population is really decline and in critically endangered condition to survive. If comparing the current situation to the era of "poaching and trading" in past years ago, compounded by the public story about the difficulty to seeing Tuntong laut currently, it becomes apparent that the second conclusion is undoubtedness.

As a consequences of "poaching and trading" that was happened in the past, i think the population decline also influenced by the degradation and deforestation of mangrove forest reserves in Seruway. Riding a wooden-machine boat down the river from the village Sungai Kurok III - about 20 kilometers from Kuala Simpang - towards Pusong Cium, at some location on the river banks, we can be see mangrove wood which taken for charcoal production. While at a closer location to residential areas, several locations converted into the oil palm planting. If both of these activities

are not managed properly, in the long term, will decrease the quality of mangrove forest reserves and wildlife who lives in the area.

Berembang tree (*Sonneratia sp*) that grows on the river banks, when the fruit fell into the river will be the main feed for *Tuntong laut*. Based on research conducted by Moll (1976), *Tuntong laut* is rely their feed from plants and fruits in mangroves forest, although *berembang* still remains the dominant for diet. Deforestation to the mangrove forest will affect their diet resources. Furthermore, this will affect the chain of other biodiversity that depend on *Tuntong laut*. *Tuntong laut* plays a role in recycling nutrients recycling and spread the seeds for the flora and fauna who lives in estuaries ecosystem.

The presence of *Tuntong laut* killed due to the engine of boat fishing, caught by fishing net and fishing knail also are challenges to survive. During the period of this observation were carried out, found as much three of *Tuntong laut* that caught by fishing net.

Status and Protection

Indeed the decline of *Batagur borneonsis* population is not only felt in Pusong Cium and surrounding areas. In the global scale, the IUCN (International Union for Conservation of Nature) has listed this species in the category of "*critically endangered*" in IUCN Red List 2009 . Even, since year 2003, this species has been included in top of 25 freshwater turtle species in critically endangered (TCF, 2003). While the government itself has put *Batagur borneonsis* into category high priority to conserved as included in Minister of Forestry Decree Number P.57 year 2008 (*Peraturan Menteri Kehutanan P.57/Menhut-II/2008*) about National Strategic Directions in Species Conservation year 2008 to year 2018. But, *Batagur borneonsis* is not listed in the appendix of Government Regulation No. 7 of 1999 (*Peraturan Pemerintah Nomor 7 tahun 1999*) on the Preservation of Plants and Animals. The implication is a emptiness of actual protection system for Painted terrapin population.

Armed with that knowledge and assisted by several local residents trying to carry out field observations on the species. As a result, since April 2003, found only

12 adults of Painted terrapin in both of Seruway and Bendahara Sub-district, including they who "landed" in Pusong Cium beach to nesting. However, this does not included Painted terrapin who found in Kuala Genting beach - where the beach is located in Bendahara sub-district. Kuala Genting also has a track record as the main beach to nesting. This is evidenced when the team conducted field observations on nesting season in the period from October 2009 to February 2010, some of local fishermen told the stories about their successness in collecting the eggs. Some eggs that successfully purchased by the author and the team to be incubated and released are partly also from Kuala Genting beach.

The next question is how the future of Tuntong laut in Pusong Cium, Aceh Tamiang or in other areas? A study of Oxfam released by Oxfan International titled *Rethinking Disaster* (2008) stated that the *majority of disasters is more caused by human behavior factor than natural factors*. If we accept this premise, then the intervention to human behavior is absolutely necessary to save this species. The areas of intervention that can be achieved among others is through regulations. In the vacuum condition of protection system for this species in national level, due to it does not included in the Government Decree (*Peraturan Pemerintah*) number 7 year 1999, the local governments can certainly play a role through the establishment of local regulations. Especially for the province of Aceh, in the presence of Regulation Number 11 year 2006 about the Government of Aceh Province (*Undang-undang Pemerintahan Aceh*), establish a provincial regulation in protection this species is feasible to be conducted.

In addition, in the short to medium term should also conduct monitoring and rescue efforts. Patrolling and securing the beach to saving and incubating the eggs could be an option. Nevertheless, given that the local's economic activities - the production of charcoal from mangrove and land conversion to palm oil - have impacts on the sustainability of mangrove forests which is actually a habitat for Tuntong laut, the efforts to conserve the habitat efforts must be planned and implemented well.

Granting the status of forest reserve to mangrove forests in Seruway and surrounding, without any actual efforts towards the protection of biodiversity contained in them, is necessary but not sufficient. In fact, that mangrove forests and

all of biodiversity contained is playing a role to sustaining the fisheries resources. The wealth of biological diversity, if managed properly - such as developing ecotourism to animal watching and exploration of mangrove reserves - could increase the added value of environmental services for local's welfare. However, a proper mechanism is necessary. The involvement of government, community and other stakeholders is necessary to find the right formulation.

Soon, the west monsoon season will welcomed immediately. It's time for Tuntong laut male to experienced the *sexual dichromatism* - color changes from brown to white and reddish orange. It is also a time "the tradition of nature" for Pusong Cium and surrounding beaches began to "call" Tuntong laut to nesting.

Would the beaches survive, become a place for humans to hear the sounds of *tung - tong*; become a place for female *Tuntong laut* to continue to run her destiny like a mother who gave birth to her child; a place for people to witness one of the wonders of God's creation or it will only become a bedtime story for children and future generation in Seruway and world? Hopefully, our choice is not to be a part of the premise "*most of the ecological disaster caused by human behavior factors than natural factors*"

PICTURES IN THE ARTICLE



Adult female : three of adult female of *Tuntong laut* (Painted terrapin/*Batagur borneensis*) found in Sungai Iyu Village, Bendahara Sub-district, Aceh Tamiang Regency, Indonesia. Photo : Joko Guntoro



Nesting beach : Pusong Cium beach, Seruway Sub-district, Aceh Tamiang Regency, Indonesia, is a place for Tuntong laut to nesting in nesting season. Photo : Joko Guntoro



Habitat : Mangrove forest reserves in Seruway Sub-district, Aceh Tamiang Regency, Indonesia, is a place for Tuntong laut to lives. Photo : Joko Guntoro



Released : a Tuntong laut that caught by fishermen in estuaries around Pusong Cium beach, after marked dan data collected, released to the estuaries. Photo : Joko Guntoro