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Horseshoe Crabs galloping towards extinction

Orissa is home to the some wide variety of aquatic life. But the horseshoe crab and freshwater turtles found here are on the verge of extinction. Killing of these animals are punishable, still rampant poaching and trade of these species is on.

ORISSA is widely known for its glorious history, but in the recent past it has been drawing attention of wildlife experts the world over. Apart from many prized species of flora and fauna, the state also has a living fossil to boast of.

According to experts, the Horseshoe crab, which is widely found along the coast of Orissa, existed long before the arrival of dinosaurs. Two decades ago, Horseshoe crabs were found in large numbers along the coastal belt, but now the species is confined to specific pockets like Eakakula beach, Balarampur, and Chandipur beaches of Balesore district and Hukitola areas of Kendrapada district, according to Basudev Tripathy, a scientist of the Wildlife Institute of India (WII), Dehradun. Tripathy says, "a statewide survey of the horseshoe crab by WII, (as per the direction of the Union Ministry of Science and Technology, to ascertain the status of the marine creature) revealed declining concentration of such species along the coast. During the two-week survey, the two scientists, Tripathy and Sajan John surveyed Ekakula, Hukitola, Gahiramatha, Nasi, Madli and Agarnasi beaches of Kendrapada, Chandipur areas of Balesore district and other beaches in the state to gather first-hand information about status of Horseshoe crab.

Two species of horseshoe crabs, *Carcinoscorpius rotundicaeuda* and *Tachypleus gigas* are found along the east coast of India. Horseshoe crabs were reportedly first seen on November 28, 1993, along the Hukitola beach near Bhitarkanika wetlands area. Interestingly, it is known by various names like *Ram Laxmania Kankada*, *Samudra Bichha* and *Belangkar*. The horseshoe crab belongs to the Phylum Arthropoda, which includes insects, spiders, scorpions and crabs. Surprisingly, the horseshoe crab is not actually a crab. In general, crabs have two pairs of antennae and a pair of mandibles of jaws, which are not present in the horseshoe crab. It is closer to spiders and scorpions.

Horseshoe Crabs habitat consists of temperate and tropical seas. The coast of Orissa, especially the wetlands areas provide favorable living conditions and breeding grounds for horseshoe crabs who prefer to remain on the bottom sediments of the shallow sea. With high tide, male and female horseshoe crabs come ashore in large number for breeding. They breed throughout the year. The breeding behavior of both species is quite different. *Carcinoscorpius rotundicaeuda* prefers to breed in muddy areas and mangrove vegetation, whereas *Tachypleus gigas* prefers beach. Nesting activity occurs during full moon and new moon days depending upon the lunar cycle. During this period countless breeding pairs are found along the coast of Orissa.

Horseshoe Crabs are prized for their blue blood, as it finds wide application in bio-medical sciences. The crab is in high demand worldwide for its therapeutic values. Its blood is used in making drugs for diseases like mental exhaustion and gastroenteritis.

These crabs are being killed in thousands by the local fishermen. The Bangladeshi refugees have engaged the local children to collect Horseshoe crabs for smuggling purpose. Smuggling of horseshoe crabs to foreign countries is rampant, as they are in great demand by pharmaceutical companies for their medicinal value. The divisional forest officer (DFO) says “ I have strictly given orders to the forest field officers that anybody found with horseshoe crabs for any purpose necessary action should be taken against him/her immediately as per the forest and wildlife laws.” Though horseshoe crabs are on the verge of extinction in other countries like Japan, Indonesia and America, India and in particular Orissa is home to a sizable number of them. Therefore the state should take measures to ensure that killing and smuggling of horseshoe crabs is prevented before the species becomes extinct. The central government has declared now that the horseshoe crab is an endangered species.

Not only the horseshoe crab, but also, rampant poaching and trade of endangered fresh water turtles of Orissa is rapidly driving them to the brink of extinction. The river Mahanadi is one of the best-known fresh water turtle habitats in the country and once was home to an abundant population. Deep-water pools, sand and mid-river islands provide an ideal home for these reptiles. Eleven different species of fresh water turtles are reported to be found in Orissa. Batagur River Terrapin, Hard Shelled turtle, Indian Tent turtle, Indian Black turtle are hard shelled species found here. Soft shelled turtles include Narrow headed soft shelled turtle, Indian Flap shell turtle, Ganges soft shelled turtle, Peninsular soft shelled turtle, Indian Peacock soft shelled turtle, Asian Giant soft shelled, River Terrapin, and the Leithia's soft shelled turtle. All soft-shelled species are classified as endangered by the International Union for Conservation of Nature (IUCN). A recent survey by the Wildlife Society of Orissa

revealed the presence of two hard shelled and four soft shelled species of turtles in Mahanadi and reported that five species might have gone extinct from the main Mahanadi since they could not be located. Poaching gangs comprising of Bangladeshi fishermen based at river islands of Mahanadi River at Cuttack and Choudwar, also travel upstream to catch these endangered species on a massive organized scale. Due to strong demand of turtle meat from neighboring state West Bengal among the Bangladeshi community, the traders are now sourcing turtles from Orissa due to the abundant presence of turtle populations in major rivers like Mahanadi and Baitarani. Recently the railway authorities had seized (five times within one year) three to ten sacks of Indian flap shell turtles from traders and many times turtle are seized by the local police, forest staff, animal and wildlife activists from the bus, at Kujang and Rahama bus stop. Only the Indian tent roofed turtle is not targeted for poaching since its meat is inedible.

Some incidental catch by fishermen were also noticed and the meat was sold locally for Rs 39 to Rs 40 per kg. According to a six month long survey among major fishing villages about the quantity of fresh water turtles caught, the highest numbers were caught at Kakhadi village. The most commonly caught species was the Gangeticus and extremely rare Narrow headed soft-shelled turtle. Turtles are mostly caught at Dhabaleswar, Mundali, and Padmavati Kantilo, on the river upstream of Cuttack. Most of the poaching takes place in summer when water levels are low, which makes the turtles vulnerable.

Capturing, killing or selling a fresh water turtle is punishable as per the wildlife laws. Fresh water turtles are indicator of a healthy aquatic eco system and help keep the river clean since they are carrion feeders. They also eat the dead and dying fish in the rivers. The state government should immediately conduct regular check on local turtle poachers to control fresh water turtle poaching in Mahanadi.