

Last of a Great Seafarer

Ngim highlights the travels – and predicament – of one of the world's most gentle, magnificent, and endangered species

PHOTO COURTESY HERB SEGARS

In the 1970s, hundreds of female leatherback turtles still thronged the eastern beaches of Peninsular Malaysia, and were at the time promoted as a tourist attraction. Hundreds of leatherbacks would slowly wade to the nestling places hordes at a time like silent invaders, darkening the pale sandy beaches. Tourists and local villagers would crowd around the animals, and occasionally children would clamber onto the backs of the (probably already flustered) animals and often, overeager adults would shine their flashlights on them. Occasionally very large (and very old) leatherbacks would be reported in the local newspapers, and more than once a leatherback “as large as a car” would be sighted. It was a festival of a kind, of a surreal spectacle and seemed like the beginning of an end. Not many years later in the early 1980s, few leatherbacks were left to make their pilgrimage to the shore. Scouts were employed by hoteliers on the lookout for the rare arrivals of the leatherbacks to shore so that desperate crowds would make the visits of the leatherbacks even less comfortable. By the 1990s leatherback sightings became extremely rare.

Having been in existence for a hundred million years, the leatherback turtle outlasted the age of the dinosaurs. It traversed the oceans before the great *Tyrannosaurus rex* appeared and was still there when *T. rex* perished along with the other dinosaurs 65 million years ago. It also saw the rise of the mammals, and all manner of sea creatures over millions of years, and very recently, the emergence of mankind. It is one

of nature's great seafarers, if not its greatest, gentlest and perhaps most serenely elegant. Sadly, the age of the leatherback is coming to a close, symptomatic of the sudden demise of the earth's rich biodiversity over the last 20 years.

There are few creatures more free than the leatherback, which traverse the vast expanse of earth's oceans – from the Pacific to the Atlantic, and to the Indian Oceans, and from the Arctic to New Zealand. For instance, one leatherback tagged in Terengganu, Malaysia, was later sighted in Hawaii a few months later. At about 1.7m to 2.7m shell length, and 700kg to 900kg, (one found in Wales was 3m long and weighed 916 kg) the adult leatherback is harmless to man, feeding mainly on jellyfish, unperturbed by all around it, elegant and



powerful in water but slow and cumbersome on land where it, unfortunately, has to lay its eggs. It lays a clutch of about a hundred eggs at a time, up to six to nine times in a season, stealthily at night and burying them in the sands by the waterline. At the best of times few of the hatchlings eventually survive as all manner of predators feed upon them as they scuttle to the water and other predators feed on them in the water. Their chances of survival diminished further as man began to collect the eggs even before they are hatched, regarding them as a delicacy.

The structure of the leatherback is a wonder of nature's architecture. It is the most streamlined of turtles; its tapering shape offers the least resistance to water. It does not have a conventional hard shell, but its covering is made up of thin, irregular plates of bones in leathery skin, hence its name. The seven ridges that run the length of its covering provide structural stiffening.

The veins and arteries of the leatherback are wrapped in insulating fibrous bundles, like insulation for cables in homes. Veins and arteries run in parallel to one another so that heat is transferred from outgoing arteries to incoming veins, preventing blood from freezing in Arctic temperatures. A similar system in its nares enables it to breathe cold air. In the tropics the leatherback mainly hunts in waters cooler than 80 degrees Fahrenheit and cuts back in muscle activities. The large size not only stores heat but also prevents a rapid build-up of heat. When laying eggs, the female only crawls to shore at night; therefore the exposure of the leatherback to high temperatures is minimal.

The leatherback is not a passive, defenseless creature in water either. It has great strength and can be quite formidable if attacked or captured. There is one account of a leatherback chasing a shark that had tried to attack it, and after driving away the shark it turned on the boat of observers.

It is also known to be vocal. Local villages in Terengganu have reported hearing “weeping, or crying” as the turtle hatched its eggs – this became a fable in folklore that the turtle wept for its doomed hatchlings. The leatherback is indeed the noisiest of all reptiles; when captured it emits whistles, moans, groans and roars. In absence of a larynx (voice box) or a bird's syrinx, the leatherback probably modifies its sound in its trachea (windpipe). The trachea of the leatherback is far more elaborate than in other reptiles; it is made of many jointed bones that can move independently in three dimensions. Why airborne sound is needed for a mainly underwater creature is anyone's guess.

Dr. Chan Eng Heng and her husband, Liew Hock Chark, who have been almost alone in seriously initiating turtle preservation in Malaysia since 1993, recorded the sharply declining numbers of the leatherback and predict that it would be extinct this millennium. This seems rather optimistic if trends are anything to go by. According to their research paper, “Decline of the Leatherback Population in Terengganu, Malaysia, 1956 to 1995,” they recorded that, compared to 10,155 nests in 1956, only 37 were recorded in 1995. In 2003, despite extensive scouring by the fisheries department in Terengganu, no more nests could be found or reported. ■■■

The leatherback is also always covered with oil. As well as further reducing resistance, the oil also helps to regulate body temperature as the turtle traverses oceans of varied temperatures, and the oil acts as a heat reservoir. It is for this reason that few leatherbacks are preserved in museums as their bodies continue to emit oil even after death. The flesh, skin, and even the skeleton are all saturated with oil. Dead leatherbacks are known to drip oil for decades and are used in a few parts of Indonesia in by-products such as oil for lamps.