

BIOMETRICS OF MARINE TURTLES NESTING ALONG THE
SOUTH WESTERN COAST LINE OF SRI LANKA

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Five species of marine turtles are recorded as nesting along the south western coast of Sri Lanka. The only available measurements are those of Deraniyagala (1939), which were based on small sample sizes.

Biometric data on eggs (diameter and weight), hatchlings (straight carapace length, width and weight) and juveniles were collected during the period of June 1987 - June 1989, mainly at the Kosgoda Victor Hasselblad turtle hatchery and from few other locations along the south western coast. Measurements of sub adults and adults were made from nesting females at Kosgoda, from turtles taken by fishermen and carapaces of dead individuals at Negombo and Kandakuliya.

The mean diameter of eggs were 42.5 ± 1.2 mm (n=225), 39.5 ± 0.9 mm (n=75), 38.8 ± 0.8 mm (n=25) and the mean weights were 40.3 ± 2.4 g (n=225), 32.6 ± 2.4 g (n=75) and 31.7 ± 1.7 g (n=25) for Chelonia mydas, Lepidochelys olivacea, and Eretmochelys imbricata respectively.

The mean straight carapace length (SCL) of one day old hatchlings were 48.0 ± 3.00 mm (n=225), 43.0 ± 2.0 mm (n=260), 40.9 ± 1.3 mm (n=75), 59.7 ± 2.0 mm (n=50), 44.3 ± 1.4 mm (n=12) and the mean weights were 21.8 ± 2.9 g (n=225), 17.7 ± 2.1 g (n=260), 15.9 ± 1.7 g (n=75), 42.0 ± 2.7 g (n=50) and 15.2 ± 1.1 g (n=12) for C. mydas, L. olivacea, E. imbricata, Dermochelys coriacea and Caretta caretta.

The nesting C. mydas female at Kosgoda, with a SCL of 985mm and a width of 775 mm and the carapace of a dead Caretta caretta from Kandakuliya that measured SCL of 905 mm and width of 740 mm are the largest C. mydas and the C. caretta so far recorded in Sri Lanka.

The mean diameter and the weight of eggs differ markedly from those given by Deraniyagala (1939). Eggs are brought to the hatchery from an area as far north as Induruwa and far south as Balapitiya. There may be a water loss from the eggs, between the time of laying and the time they were measured.

The mean SCL and the weight of one day old hatchlings also vary from those given by Deraniyagala (1939). There may be a difference in size of hatchlings from hatcheries and those from the wild.

The variation in measurements of eggs and hatchlings also may be due to the smaller samples with which Deraniyagala had worked.

References:

Deraniyagala, P.E.P. (1939) The tetrapod reptiles of Ceylon. Vol. I Tegtudines and Crocodilians. Colombo, The Director, Colombo Museum. London, Dunalu.