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**NEST SITE FIDELITY AND NESTING BEHAVIOUR OF MARINE  
TURTLES IN REKAWA TURTLE ROOKERY**

A THESIS PRESENTED BY

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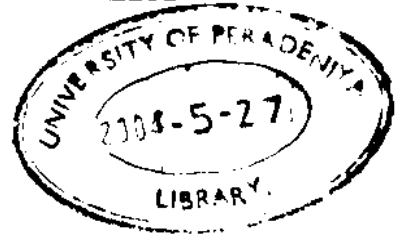
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**Abstract****NEST SITE FIDELITY AND NESTING BEHAVIOUR OF MARINE TURTLES IN REKAWA TURTLE ROOKERY**

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There are seven species of marine turtles living in the world and five of them come to nest in Sri Lanka. They are green turtle (*Chelonia mydas*), loggerhead (*Caretta caretta*), hawksbill (*Eretmochelys imbricata*), olive ridley (*Lepidochelys olivacea*) and leatherback (*Dermochelys coriacea*). This study was carried out in Rekawa turtle rookery, a two kilometer stretch of beach in the southern Sri Lanka. All the turtle species nesting in Sri Lanka nested at Rekawa study site during the period of this study. Studies were carried out on all five species with more emphasis on the most frequent species, the green turtles.

The total time taken for the nesting process of all five species in Rekawa was similar to the observations made in other parts of the world while green turtles have taken the longest duration. The percentage time for the each activity was calculated. The average egg count, egg weight and egg diameter was calculated. The nesting was observed throughout the year with a peak season from March to July. Ninety six percent of the turtles nested at Rekawa beach were green turtles.

The turtles selected different locations for nesting on the beach. In some places there were several nesting, while in others only a few were observed. It was observed that the distance to the vegetation from the nests was also varied. The green turtles show a high degree of nest site fidelity and 75% of them came back to re-nest on the same site. The average number of nests in a single nesting season for the green turtles was 4.1 (SE = 0.1) with a minimum of one and a maximum of 12 nesting.

On the basis of temperature dependent sex determination (TSD) the sex ratio of the hatchling green turtle on the Rekawa beach was 71% females and 29% males (7:3). This study revealed that there was no correlation between the number of nesting turtles and the lunar cycle as well as the tidal level.