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***SPATIAL AND TEMPORAL VARIATION IN SEX RATIO ESTIMATIONS:
THE CASE OF DALAMAN BEACH, MUGLA-TURKEY**

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The nesting activities of loggerhead turtles were recorded on Dalaman beach, one of the main nesting grounds in Turkey during the years 2002–2008. The total number of emergences was 2,620 and 645 (25%) of them resulted in nests. The distribution and fate of the nests together with hatching success were investigated and the locations of nests were marked on maps together with beach-back structures. The incubation period of nests varied between 40 and 67 days with a mean of 49 days. The clutch size of nests ranged from 18 to 150 eggs with a mean of 79 eggs. The percentage of hatching success was 79.7% (min: 0, max: 100%). The sand and nest temperatures were recorded with electronic temperature recorders. The sand temperatures were found to be lower close to the sea and showed an increase towards inland. The intra-nest variations, inter-nest variation and sand temperatures at nest depths at 128 locations were recorded. The mean temperatures were 30.5 at the bottom, 31.3 at the middle and 31.6 °C at the top levels. The mean temperatures at the first, middle and last third of the incubation period were 29.4, 30.1 and 30.7 °C respectively. The estimated sex ratios of females for the temperatures taken for these duration were 60% at the first third, 69% at the middle third and 78% at the last third periods. The mean of sex ratio for the mean of the entire incubation temperature was 75%. The sex ratio of dead hatchlings and embryos was determined by histological examination of the gonads and the mean sex ratio obtained was 70% females (n=490). The majority of the embryonic mortalities were found at early (6–7) and late (>26) stages. When these embryonic mortalities were compared in terms of depths, the highest percentages were found at middle (45%) and lower (35%) levels of the nests and less mortality (20%) in the higher levels. When the sex ratio of dead hatchlings and embryos is compared between the different levels, a 90% female sex ratio was obtained at the upper level, but female sex ratio was 82% and 50% at the mid and lower levels respectively. The spatial and temporal variations of nests and their sex ratios were discussed under the possible effect of beach back structures to the nesting site preferences of adult females and the possible effect of global warming.

SEA TURTLE NESTING TRENDS IN THE LAKSHADWEEP ISLANDS OF INDIA

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A one-year study on sea turtles was carried out in the Lakshadweep islands, an archipelago of coral atolls off India's west coast. The islands, comprising 32 square km of land area and 60,000 square km of territorial waters host a regionally significant population of three species of sea turtles – the green turtle, the hawksbill and the olive ridley. Our study focused on setting up an easily replicable monitoring protocol and tagging program in the islands to preliminarily quantify spatial and temporal trends in nesting patterns between the three sympatric species. Onshore assessments were also carried out to determine current status of nesting beaches and existing level of anthropogenic threats to habitat in both inhabited and uninhabited islands. Significant loss of nesting habitat was seen in all inhabited islands as a result of beach armoring and expansion of human habitation up to the high tide line. Monitoring surveys for nesting carried out on Agatti Island revealed variable nesting densities along the island's 15 km long coastline. Over 65–300 nesting attempts were seen in total, with average densities ranging from 40–188 nesting attempts/km of beach length. Index of nesting success was found to be between 0.17–0.29 while nest density ranged from 7.2–25.6 nests/km. Green turtles were more abundant nesters as compared to the other species. Green turtles did not show any specific seasonality in nesting while olive ridleys nested specifically between December and February. However a distinct peak in nesting intensities of green turtles was seen between March and May. Hawksbill nesting was extremely rare and sporadic. Recaptures of tagged green turtles revealed re-nesting intervals of 12 and 14 days (n=2) while nest site fixity was found to range between 0.03–1.4 km (n=7) from the original nest site.