RELATIONSHIP BETWEEN THE HATCHING SUCCESS AND CLUTCH SIZE OF OLIVE RIDLEY TURTLES FROM A TURTLE HATCHERY

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Hatching success rates of small egg clutches of leatherback turtle are higher than those of larger ones (Balasingam 1966). Similar studies on olive ridley (Lepidochelys olivacea) are not available.

A total of 32 olive ridley nests transplanted at Kosgoda, Victor Hasselblad hatchery, during the period December 1988 to March 1989, and September to December 1989 were examined. Nests were excavated 3-5 days after the emergence of hatchlings.

The 32 nests were divided, in to four groups according to the number of eggs contained. A: less than 70 eggs (n=10), B: 70-89 eggs (n=7), C: 90-109 eggs (n=8), D: more than 110 eggs (n=7).

Statistical analysis revealed that the total number of eggs in a clutch, has a significant effect (1% level of significance) on the hatching success. Further, the number of eggs has a significant effect (1% level of significance) on the mortality in late developmental stages and the total mortality.

Higher hatching success rates could be obtained in turtle hatcheries, by dividing olive ridley egg clutches with more than 110 eggs in to two batches before transplanting. Further studies on the effect of such practices on the sex ratio of hatchlings should be carried out.

References: 1. Balasingam, E. 1966, The ecology and conservation of marine turtles in Malaya, with particular reference to Dermochelys coriacea. Abstracts, 11th Pacific Science Congress, Proceedings Vol.5. Science Council of Japan.