Abstract No: 175 ***Life Sciences***

ASPECTS OF HATCHING AND INCUBATION OF RELOCATED SEA TURTLE EGGS IN THE GALBOKKA HATCHERY KOSGODA, SRI LANKA

C.S.T. Waththuhewa* and R.S. Rajakaruna

Department of Zoology, Faculty of Science, University of Peradeniya, Peradeniya, Sri Lanka
**chethiyasupuntwh@gmail.com*

In Sri Lanka, sea turtle hatcheries are privately-owned, profit-making ventures relying on tourists for viability. However, many do not conform to prescribed guidelines, and hence their contribution towards sea turtle conservation is questionable. This study examined the hatching success and incubation duration of relocated sea turtle eggs in the Galbokka Sea Turtle Conservation and Research Center, Kosgoda, on the southwestern coast of Sri Lanka. Fifty egg clutches (5,537 eggs) were relocated, including 42 green turtles and eight olive ridley turtles. The hatching success of green turtles and olive ridley turtles was 72.1% and 80.0%, respectively. The mean incubation duration of green turtle egg clutches was 59.3 ± 12.9 days (n = 28, range 42 – 90), and that of the olive ridley turtle was 55.8 ± 6.6 days (n = 8, range 49 – 64). The value recorded here for the green turtle for both hatching success and incubation duration was comparable with those recorded for natural nests of the same species. There was no correlation between clutch size and incubation duration in both species. Clutch size was positively correlated with the number of live (r = 0.57, p = 0.002) and dead (r = 0.49, p = 0.007) hatchlings of the green turtle. In the green turtle clutches, the incubation period was negatively correlated with hatching success (r = 0.62, p < 0.001). Incubation duration was positively correlated with non-viable eggs of green turtles (r = 0.526, p = 0.001) while no correlation in olive ridley turtles (r = -0.537, p = 0.272). Although hatching success of relocated and natural nests is comparable, it is important to determine the sex ratios as hatchery incubated clutches are known to produce highly female-biased populations.

Financial assistance from the Nagao Natural Environment Foundation 2019 is acknowledged.

Keywords: Green turtle, Hatching success, Incubation duration, *In-situ* conservation, Olive Ridley turtle