

THE EMBRYO MORTALITY OF THE GREEN TURTLE  
(CHELONIA MYDAS) IN RELATION TO HANDLING OF EGGS

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Eggs that are brought to the hatcheries may be several hours or several days old and subjected to handling. The effect of handling on eggs is not known. This study was to find the optimum time that could be allowed between egg laying and transplanting which will not have an adverse effect on the hatching success.

The conditions that prevailed in the country during the study period made it impossible to collect eggs directly from a nesting animal. Therefore, the experiment was conducted from March to December 1989 with eggs brought to the Kosgoda Victor Hasselblad turtle hatchery.

Twenty eggs were selected randomly from an egg clutch. These eggs were buried (control) maintaining a vertical orientation to minimize the disturbance. The rest were buried as a compact group. (A). At specific time intervals measured from the time of initial burying, 20 eggs from nest A were removed, rotated 180° about their horizontal axis and reburied. The experiment was repeated with 7 egg clutches.

After the emergence of the hatchlings, each nest was excavated and the number of animals hatched were counted. Infertile eggs also contribute to the failure of eggs to hatch in addition to handling. Therefore the number of animals hatched in a given sample (re-orientated) was divided by the number of animals hatched in the control, to obtain the relative hatching success.

Analysis revealed that there is a critical period from the 1st to the 14th day after incubation, during which the hatching success of the green turtle eggs decrease significantly due to rough handling. These results agree with those recorded by Paramenter (1980) for green turtle eggs in Australia, which were moved after laying and incubated in styrofoam containers.

A white patch appears on fertile eggs (even in natural nests) after one day of incubation. Eggs with this patch, which is indicative of high mortality due to handling, should be rejected when buying egg clutches for transplanting in hatcheries.