

PACIFIC GREEN TURTLE (CHELONIA MYDAS) EGG HATCHING PROJECT

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- Turtle No. 202- 99 eggs June 6, 1972 (day 6) ; 60 eggs deposited in sand pit at Coconut Island; 39 eggs placed in artificial incubator. On day 50, eggs removed from incubator and examined for signs of development. All appeared infertile. 6 of these eggs were transferred to Dr. Benedict, Microbiology Dept. U-H campus for antibody study. 60 eggs in pit were removed on day 72 and examined. Although still moist and pliable , no sign of development observed. 5 of these eggs are being analyzed for mercury and 5 for pesticide residue.
- Turtle No. 201- 98 eggs June 6, 1972 (day 6) ; All eggs deposited in sand pit at Coconut Island; All removed on day 72 and examined. No sign of development observed. Eggs moist and pliable. 8 eggs sent to Benedict for antibody study. 5 sent for mercury and 5 sent for pesticide residue analyses.
- Turtle No. 62-~~m~~ 86⁴ eggs June 6, 1972 (day 6) ; All eggs deposited in sand pit at Coconut Island along with temperature probe and microphone. Definite noises heard in tape recordings on day 72. Sand removed to top of egg mass during evening hours. 3 eggs removed and sand immediately replaced. Examination of eggs showed 1) no sign of development 2) small dead embryo-10 mm long- estimated at 5th to 8th day of development 3) live but grossly abnormal embryo measuring 40 mm long. Animal died shortly after opening. Between day 72 and day 83 recording showed increasing levels of activity. On evening of day 83 nest was again excavated to top of egg mass. Two live and healthy hatchlings were removed and nest recovered. During the daylight hours of day 84 continued noises were recorded from the nest. On the evening of day 84 nest was completely excavated and all eggs carefully removed. Six live and healthy hatchlings were found along with 3 eggs with partially broken shells each of which contained a fully developed dead animal. Remainder of eggs were gently palpated. ~~Of the 70~~ ⁷⁰ eggs, 12 were positively felt to be non-viable, thus ~~60~~ ⁶⁰ eggs were returned to the nest along with the microphone and reburied. Upon internal examination the following was determined: 9 showed no visual signs of development ; 3 showed dead embryo measuring 15 mm in length. Monitoring of egg mass on day 85 revealed no obvious noises. Five of the non-developed eggs are being analyzed for mercury and pesticide residue. All of the live hatchlings were cleaned, weighed and measured before being sent to the rearing facilities on Manoa campus. It is extremely unlikely that any of these 8 hatchlings could have made the ascent to the surface on their own.
- On day 97 nest was completely excavated. No sounds heard between day 84 and day 97 and no hatched eggs were found upon removal. Laboratory examination of the 60 eggs revealed the following information: 8- no sign of development; 6- dead embryo 5-10mm carapace length (C.L.); 10- dead embryo 10-25mm C.L.; 13- dead embryo 25-40mm C.L.; 14- dead embryo 40-55mm C.L.