

GREEN TURTLE (*CHELONIA MYDAS*) NESTING ON AKYATAN BEACH: RESULTS OF SIX YEARS SURVEY

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Akyatan beach, Turkey is the most important green turtle nesting site in the Mediterranean. The beach is 22 km in length and monitored everyday on foot between 1 June to 15 September between 2006-2011. During these periods, nest and non-nesting emergences were determined and nests were excavated after the hatchling emergence was complete. The contents of each nest were recorded. The hatching success, the number of hatchlings reaching the sea and the incubation duration for each nest were calculated. We recorded a total of 5879 emergences with 2171 (37%) resulting in *C. mydas* nests during 6 consecutive years with a mean of 362 nests per year. The mean nesting density was 16 nests km⁻¹. Of the overall *C. mydas* nests on Akyatan beach, 1348 (62%) were excavated and 151976 eggs were counted. Of these eggs 116309 (76.5%) hatchlings had come out and 88673 (76%) of them were able to reach the sea. There were strong annual fluctuations in the number of nests ranging from 170 (in 2007) to 562 (in 2006). Six years of nest numbers showed a slightly decreasing but statistically insignificant trend ($r = -0.34$, $p > 0.05$). Acknowledgments: This study was carried out with a cooperative protocol between WWF-Turkey and the Ministry of Waters and Forestry. The authors would like to thank the volunteers.

HATCHING AND EMERGENCE SUCCESS OF GREEN TURTLE (*CHELONIA MYDAS*) IN THE GALAPAGOS ISLANDS*

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In sea turtles, the interaction of numerous abiotic and biotic factors experienced by eggs during incubation affects embryonic survival. In this study, we determine hatching and emergence success of green turtle nests and evaluate the effects of site, year, day of oviposition, carapace length and width of female, nest position and nest habitat, chamber depth and depredation. We compare the relative success of key nesting beaches on the Galapagos Islands, one of the most important rookeries for the green turtle *Chelonia mydas* in the Eastern Pacific Ocean. To evaluate the extent to which parameters affected hatching and emergence success, a binomial generalized additive model (GAM) with fixed effects was used. We found variation in hatching and emergence success to be significant among years and beaches, with the day of oviposition and with nest habitat. Mean hatching and emergence success (S.D.) for the 1039 nests examined was 46.0% (33.4) and 45.6% (33.4), respectively. These values are relatively low compared to other green turtle populations. Nest predation by feral pigs and beetles and nest destruction by turtle digging were the most important causes of embryo mortality. Results from our study will be useful for managers in the Galapagos National Park Service when formulating management strategies to protect green turtle critical habitats.



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Compiled by:

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