ABSTRACT

THE EFFECTS OF BIOTIC AND ABIOTIC FACTORS ON *Chelonia mydas* THE SEA TURTLE'S HATCHING SUCCESS AND MORPHOLOGY IN AKYATAN BEACH

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In this study, some physical characteristics of randomly chosen nests in Akyatan breeding beach, situated among the borders of Karataş, Adana is examined and its effect on *Chelonia mydas* hatching success and morphology is investigated. With the help of the chips that can be programmed in nests, the percentage of moisture in nest chambers and average temperature during incubation period, belonging to the sand samples taken from the grounds of total 44 nest are analyzed. Moreover, the physical and microhabitat characteristics of nests, such as; nests distance to sea and vegetation, total deepness and incubation period are measured and their effects on hatching morphology and hatching success are investigated. From these data of nest, a significant relation between temperature and incubation period is found in a negative way ($r: -0,742$; $p < 0,05$). But other measured physical parameters don't show any statistical meaningful relation ($p > 0,05$). On the other hand, a very small relation($r: -0,407$) that is meaningful in a statical way($p > 0,05$) is found between hatching success and temperature. Carapasial scute number of 1056 hatching is examined and at the same time the carapasial measures of this hatchings (straight carapasial lenght and width) are taken. In these analyses, a meaningful relation in a negative way between hatchling size and temperature is identified($r: -0,533$; $p < 0,05$). A meaningful relation between hatchling size and other parameters can not be found ($p > 0,05$).

Key words: *Chelonie mydas*, hatching success, incubation temperature, morphometric, East Mediterenean, Akyatan Beach.