# New Loggerhead Turtle Nest and Injured or Dead Turtles Recorded in Kuşadası, Aydın-Turkey

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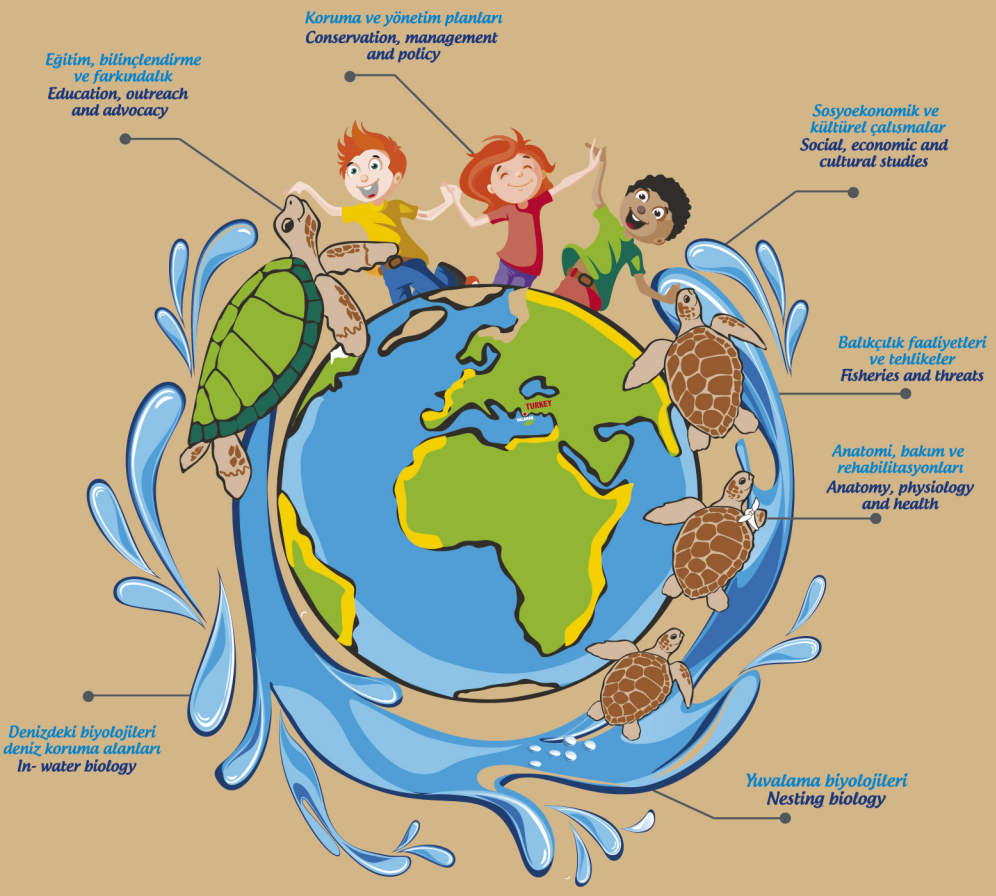


# 35TH ANNUAL SYMPOSIUM ON

# SEA TURTLE

## BIOLOGY AND CONSERVATION

DALAMAN - SARIGERME- DALYAN (ORTACA)- MUĞLA- TÜRKİYE

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**Abstract ID:** 6049 **Type:** Poster **Subject:** Nesting Biology **Country:** Brazil
**Submitted By:** Carina Moura

# INFLUENCE OF ARTIFICIAL ILLUMINATION ON THE ORIENTATION OF HAWKSBILL HATCHLINGS

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The marine turtles in natural abiotics conditions emerge of the nest during the night and follow directly to the ocean, tracking the moonlight reflex over the sea waters. Due to the increase of the anthropologic activities such as tourism and the addition of the artificial lights along the coast, the deviation of the route of neonates of marine turtles is commonly observed. These modifications of the natural environment act in a negative way upon this species extremely threatened. In order to evaluate the influence of artificial lighting above the offspring of *Eretmochelys imbricata* we performed 10 experiments with 15 neonates/test, five experiments in illuminated environments and five in unenlightened environments, in the southern coast of Pernambuco State, North east of Brazil, area with seasonal nesting of *E. imbricata* and about 150 nests per season. Circles were drawn in the sand with 2 meters radius, and in the center a small depression was made depth 2-3 cm. After neonates cross the edge of the circles, the traces were photographed, mapped onto a diagram and estimated the orientation angles of each neonates from the center of the circle to the edge in relation to the sea. To verify changes in the trajectories of neonates we used the Rayleigh test. The significant differences between the movement of neonates of nests enlightened and unenlightened were tested using ANOVA. To assess the similarity and significance of the clusters was used Multi-Dimensional Scaling. The paths of neonates nests located in lighted areas showed changes in the trajectory of 86,67% (N=65) of total. Only nests located in artificially illuminated environments the distribution of trajectories was considered random V=19.4895; p>0,05). The movement patterns of neonates in illuminated environments and not lightened were significantly different ($F < 0.0001$; $p < 0.01$). It's known that the sea turtles neonates are sensitive to spectral lights sources and the modifications in the nesting environmental are a huge threat for these animals, causing death mainly because of dehydration, increase of predation and exhaustion. In Brazil there are laws which control the illumination intensity in protected areas. However, despite to the importance of the area where this study was conducted, the law still not covers these beaches because of the tourism in the region. Therefore this study brings information to may subsidize conservation projects for these nesting areas.

**Abstract ID:** 6070 **Type:** Poster **Subject:** Nesting Biology **Country:** Turkey
**Submitted By:** Eyup Başkale

# NEW LOGGERHEAD TURTLE NEST AND INJURED OR DEAD TURTLES RECORDED IN KUŞADASI, AYDIN-TURKEY

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Loggerhead sea turtles are isolated from Atlantic population and colonized in the Mediterranean and their nesting population seems to be around 2000 females only. Nearly half of these populations are nesting south Mediterranean beaches of Turkey. Their nests has been recorded most north-western beach of Ekincik and Dalyan. During the last three years a single nest, on Kuşadası public beach, in each season were recorded nearly 200 km north of these present nesting beaches. The first nest was recorded at the beginning of June (2012) with 81 eggs, second one was at the end of June (2013) with 98 eggs and third one was at the beginning of August (2014) with 72 eggs in it. Average incubation period of these 3 nests was 53. Totally 171 hatchlings were observed and genetic samples were taken from dead hatchlings that remain in the nest. These three nests were protected and watched by local authorities and volunteers on the beaches and attracted almost 20.000 visitors during the entire incubation period. From the incubation period, by comparing the results with nearby beach of Dalyan, we can assume that nearly equal sex ratios of hatchlings are produced. The results were discussed under the possible shifting behaviour of loggerhead turtles as a possible result of global warming.
On the other hands, high number of mortalities during the recent years shows the importance of Kuşadası Bay.In addition tothis, injured turtles that found in trawlers was released after they checked by EKODOSD members. If they have serious injuries, they sent to DEKAMER centre for rehabilitation.One of them was a green turtleand found near Kuşadası coast in October 2013. It had fishing-line on right front flipper and finger bones can be seen from outside. In this case this flipper had amputated by vets under sterile conditions. After treatment period, turtle gained wealth and released to sea on September 2014.