

## LOGGERHEAD TURTLE NESTING ON A BEACH COAST IN SOUTH-WESTERN SICILY

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The loggerhead turtle (*Caretta caretta*) nesting is a very unusual event along the Italian coasts, and regular nesting sites are even rarer. Along the Sicilian coasts, regular nesting sites are those in the islands of Lampedusa and Linosa, whereas single occasional nests have been identified during the last few years along the southern coast of Sicily. In summer 2005, two turtle night climbing up and one egg laying events were observed on a beach in southern Sicily, in the Giallonardo area (province of Agrigento, Sicily), while a second nest was identified when turtle hatchlings left it. Through measurement probes applied outside and inside one of the nests (30 and 50 cm depth), temperature values were recorded. Biometric data of hatchlings and eggs were collected through a digital calliper and electronic balance.

Turtle beach climbing up events took place during the night between 27 and 28 July 2005. Egg laying occurred during the second half of July at a distance of approximately 240 metres one from the other. The number of eggs in the two nests was 66 and 99, respectively, and reproduction success rate was 25.8% for the first nest. Eighty days after egg laying, much later than incubation time known for nests in Sicily, Lampedusa and Linosa, eggs from the second nest were moved - with the authorization of local competent authorities - to an incubator, where only one egg hatched. The average diameter of eggs in the two nests was 37.7 mm (n=3) and 35.3 mm (n=97), respectively, with 22.2 g (n=97) average weight. The average length of hatchlings was 40.2 mm (n=11), and 13.5 g (n=8) average weight. Average temperature rates in monitored nest were 24.8 °C and 24.4 °C, at 30 cm and 50 cm depth, respectively.

In 2005, known loggerhead turtle nesting sites on the coasts of Sicilian islands should only be three, one of which on the island of Linosa, and two on Giallonardo beach. These two nests - together with beach climbing up events - were close in time and space. This would show the high value of southern Sicilian beaches for reproduction and protection of this species. In the first nest, low productivity values measured may be due to constant presence of campers in the area, especially during the entire month of August, which caused missed hatching of 40 eggs (60.6%); for the second nest, the cause may be due to sudden temperature decrease, which lasted for approximately one week, and may have provoked embryo development slowdown and stop. Beach climbing up and egg laying occurred, in spite of the fact that human pressure is quite strong in this beach section, due to bathing use of the area during the day, and amateur fishing activities during the night. Due to the fact that the area is not protected at all, amateur fishermen usually reach their fishing sites driving on the beach with cars.

Key words: *Caretta caretta*, loggerhead turtle, Sicily, reproduction.