

The Effects of Fungi in The Loggerhead Sea Turtles Nests, (*Caretta caretta* L.), at İztuzu Beach (Dalyan, Turkey)

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Aim of the study: The loggerhead sea turtle, *Caretta caretta*, is a least concern species being monitored by many conservation bodies. The primary factor affecting the continuation of the formation of sea turtles is known as the threats to the nests. These factors can be divided into biotic and abiotic. Wave erosion and industrial wastes are the most important factors affecting the success rate of hatching in sea turtle nests located on beaches. In addition to these factors, nest temperature, moisture and microorganisms found in sand are among the factors affecting success. The fungi colonizing the nesting sand and eggs were tried to uncover the possible effects of the nesting sea turtles.

Material and Methods: The nesting beaches of İztuzu at Dalyan (Muğla), one of the nesting beaches of the loggerhead turtle *Caretta caretta* in the Turkey. Turtles nest annually between May and August. All samples were taken at 2015 nesting season. Our 16 nest sands from 50 cm deep and above had been chosen for sampling. Sand samples were gathered on two separate field trips. We collected both samples using known laying time or ending of incubation time. Samples were taken from eggs with sterile injectors from undamaged eggs. The samples were inserted into sterile urine containers and brought to the laboratory by cold chain. The samples were refrigerated at +4°C. Then transported to the microbiology laboratory within 24 hours. Sand samples were shaken for 1 minute after dilution. All samples transferred to Sabrouth Dextrose Agar (SDA) by spreading method. The samples for inoculation were left for incubator.

Results: Three species of fungus were identified from the sampling of the sand. Dominant species were *Aspergillus* sp., and sub-dominant species were *Fusarium* sp.. Two of them were found in all the nests. In the embryonic period, *Aspergillus* sp. was also isolated as a dominant species. *Fusarium* sp. was detected as subdominant. In the embryonic distribution, 63% of the eggs were unfertilized eggs and 37% were fertilized. Embryos in fertilized eggs were studied in three stages as early, middle and late. In total, infections were detected in 66% of dead embryos in the samples.

Acknowledgements: This study was supported by the project of 2015FBE046 by Pamukkale University coordinator of scientific research.

Keywords: Loggerhead, *Caretta caretta*, Nest, Microbiology.