

Reproductive ecology of the Loggerhead Turtle, *Caretta caretta*, at Patara, Turkey

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Abstract. The nesting of *Caretta caretta* was investigated at Patara Beach, Turkey, in the nesting season of 1997. A total of 205 emergences was recorded between 1 June and 22 September with 52 (25.4%) resulting in nests. Of the 3769 eggs (on average 72.5 eggs/nest), 2107 produced hatchlings (55.9%), of which 1638 were able to reach the sea. The overall hatching success was found to be 86.5% (of the 52 nests recorded, 45 hatched). The overall nesting density was 7.4 nests/km. The average incubation period averaged 52.1 days. The average distance of nests from the sea was 43.5 m.

Kurzfassung: Am Strand von Patara, Türkei, wurde 1997 das Nisten der Unechten Karettschildkröte, *Caretta caretta*, untersucht. Insgesamt wurden zwischen dem 1. Juni und 22. September 205 Spuren gezählt, von denen 52 (25.4%) zu erfolgreicher Eiablage führte. Von den 3769 Eiern (durchschnittlich 72.5 Eier/Nest) schlüpften 2107 Junge (55.9%), von denen wiederum 1638 das Meer erreichten. Der Schlüpferrfolg betrug 86.5% (aus 45 der 52 Nester schlüpften Junge). Die Nestdichte betrug 7.4 Nester/km. Die durchschnittliche Dauer zwischen Eiablage und Schlüpfen der Jungen betrug 52.1 Tage; die durchschnittliche Entfernung der Nester vom Meer war 43.5 m.

Key words: marine turtles, nesting, hatchlings, predation, Mediterranean Sea, Middle East.

Introduction

Previous surveys have revealed 17 important nesting grounds for marine turtles in Turkey. Green Turtle, *Chelonia mydas*, nesting is more or less confined to a few eastern beaches (Kazanlı, Akyatan and Samandağı) with all other nesting beaches utilised almost exclusively by Loggerhead Turtles, *Caretta caretta* (BARAN & KASPAREK 1989). Patara Beach is one of the most important nesting beaches for Loggerhead Turtles in Turkey. Several surveys of marine turtle nesting were conducted in subsequent years. These surveys were carried out by Dokuz Eylül University, Hacettepe University, Doğal Hayatı Koruma Derneği (DHKD) and others. More or less complete surveys were carried out in 1992 and 1993 by BARAN (1992, 1993), and a survey covering much of the nesting season in 1996 (BARAN et al. 1996).

Patara beach has been protected by law: on 2 March 1990, Patara was designated as a Specially Protected Area, SPA (Official Gazette of the Turkish Government, No: 20449). In addition, Patara has the status of a 1st degree SIT Area since 8 September 1978 due to its archaeological importance. However, implementation of the regulations has been inadequate. The nesting beach at Patara has been under threat of severe disturbance from hotel and holiday house developments in the village of Gelemiş and from unmanaged use of the beach by