

Marine turtle nesting at Patara, Turkey, in 2000

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Abstract. The reproduction of the sea turtle population at Patara in southern Turkey was investigated in 2000. Two Green Turtle (*Chelonia mydas*) nests were identified, which is the first record for the area, and the westernmost nesting site in the Mediterranean. 85 Loggerhead Turtle (*Caretta caretta*) nests were found, but hatchlings emerged from only 19 of them. Beach erosion and the covering of nests by shifting sand dunes was responsible for the loss of 54% of all nests. Although 72% of all emergences occurred on the eastern half of the beach and 74% of all clutches were laid there, there was no significant difference found in nesting success between both beach sections, which differ markedly in structure and human impact.

Kurzfassung. In Patara in der Südtürkei wurde die Fortpflanzungsbiologie der Meeresschildkröten im Jahr 2000 untersucht. Es wurden zwei Nester der Suppenschildkröte (*Chelonia mydas*) identifiziert. Dies stellt für das Gebiet den ersten Nachweis dar, und gleichzeitig den östlichsten Nistplatz im Mittelmeer. Von der Unechten Karettschildkröte (*Caretta caretta*) wurden 85 Nester ermittelt, von denen aber nur aus 19 Junge schlüpfen. Die Erosion des Strandes und die Verschüttung von Nestern durch Wanderdünen war für den Verlust von 54% aller Nester verantwortlich. Obwohl 72% aller Schildkrötenspuren in der östlichen Strandhälfte gezählt wurden, und auch 74% aller Gelege dort abgelegt wurden, wurde zwischen beiden Strandhälften – die sich in bezug auf Struktur und menschlicher Nutzung deutlich unterscheiden – kein signifikanter Unterschied im Nisterfolg gefunden.

Key words. Green Turtle, *Chelonia mydas*, Loggerhead Turtle, *Caretta caretta*, southern Turkey, Mediterranean Sea.

Introduction

Patara has been identified as one of the most important nesting beaches of Turkey for the Loggerhead Turtle, *Caretta caretta*. The high proportion of false crawls and low hatching success was first mentioned by BARAN & KASPAREK (1989). Several subsequent studies, summarised by TAŞKIN & BARAN (2001), have confirmed this in principal, but were unable to explain adequately the reasons for it. The aim of this study was to investigate Loggerhead Turtle reproduction at Patara, and to make a comparison between the eastern and western parts of the beach, which greatly differ in structure and human use. It was hoped to determine whether these factors have an impact on the proportion of false crawls and the nesting success.

Material and methods

Patara beach is located to the south of the ancient Lycian towns of Patara, Xanthos, Letoon and Pydnae and is bisected by the mouth of the ancient Xanthos River, which is now called Eşençay. The stretch of the beach to the west of Eşençay belongs to Muğla Province, and is 5000 m long;