

Assessment of the origin of a Loggerhead Turtle, *Caretta caretta*, found in Kuwaiti waters, using mitochondrial DNA

(Reptilia: Cheloniidae)

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Abstract. 306 base pairs from the control (D-loop) region of the mitochondrial DNA (mtDNA) of a Loggerhead Turtle, *Caretta caretta* Linnaeus, 1758, from Kuwait were sequenced in order to identify the origin of this turtle. Neighbour-joining tree analyses with sequences available in the GenBank showed that it had a close relationship with those of the Atlantic colonies. For adult Loggerhead Turtles of the Atlantic colonies which undertake long distance migrations, the southern extension of Africa might be less formidable as a continental barrier to their passage into the Indian Ocean and subsequently into the Arabian area because of their temperate distribution.

Key words. *Caretta caretta*, mitochondrial DNA, control region haplotype, Kuwait.

Introduction

The Loggerhead Turtle (*Caretta caretta* Linnaeus, 1758) is widely distributed in temperate, subtropical, and tropical waters (DODD 1988). In the Indian Ocean, the largest nesting population occurs on Masirah Island (Oman), with 30,000 nests a year, which is also considered to be the largest aggregation of this species in the world (ROSS & BARWANI 1982). Smaller nesting aggregations in the Indian Ocean occur in Tongaland, South Africa (BALDWIN et al. 2003), Mozambique (BALDWIN et al. 2003), Madagascar (RAKOTONIRINA 2001), the mainland of Oman on the Arabian Sea coast as well as the Halaniyat Islands (Oman) (ROSS 1982) and Socotra Island (Yemen) (PILCHER & SAAD 2000). A small population of Loggerheads also nests in Sri Lanka (KAPURUSINGHE 2006). In the eastern Indian Ocean, Loggerhead nesting is restricted to Western Australia (DODD 1988). The species is also known to nest along the shores of the eastern Mediterranean Sea (BRODRICK & GODLEY 1996, MARGARITOU LIS & REES 2001). Except for Oman, there is no written record of nesting Loggerheads in the eastern Arabian area. However, they have been rarely sighted elsewhere in the region. In the UAE, the presence of Loggerhead Turtles is only known from a few skulls and carapaces of dead animals found on offshore islands west of Abu Dhabi; no confirmed live sightings have been recorded (BALDWIN & GARDENER 2005). AL-MOHANNA & MEAKINS (2000) and MEAKINS & AL-MOHANNA (2000) were the first to report the occurrence of this species in Kuwaiti waters. Although their frequent sightings in Kuwaiti waters have evoked the interest of researchers, no nesting sites have so far been discovered and their presence is probably associated with foraging for food (AL-MOHANNA & GEORGE 2009).

Marine turtles of the family Cheloniidae migrate hundreds or thousands of kilometres between feeding habitats and nesting colonies (CARR 1964), and conservation efforts to date