

Nesting of Hawksbill Turtles, *Eretmochelys imbricata*, on the islands of the Arabian Gulf

(Reptilia: Cheloniidae)

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Abstract: The overall nesting population of Hawksbill Turtles (*Eretmochelys imbricata* (Linnaeus, 1766)) on Jarnain and Bu Tinah islands of the United Arab Emirates in the Arabian (Persian) Gulf comprised 48 nests on Jarnain and 17 nests on Bu Tinah. The nesting season was short and extended from mid-March to mid-July, with peak nesting activity in April and May. The average clutch size was 58.6. Both percent hatching success and hatchling size showed a decreasing trend from the beginning to the end of the nesting season. This might be due to the adverse effect of increasing atmospheric temperature from 26 to 48°C and of nest temperature from 26 to 35°C.

Key words. Hawksbill Turtle, reproduction, nesting biology, ecology, Arabian (Persian) Gulf, United Arab Emirates islands.

Introduction

Out of the five sea turtle species, Loggerhead (*Caretta caretta* Linnaeus, 1758), Green (*Chelonia mydas* (Linnaeus, 1758)), Olive Ridley (*Lepidochelys olivacea* (Eschscholtz, 1829)), Leatherback (*Dermochelys coriacea* (Vandelli, 1761)) and Hawksbill Turtle (*Eretmochelys imbricata* (Linnaeus, 1766)) reported to occur in the Arabian (Persian) Gulf region and surrounding waters (GASPERETTI et al. 1993), the Hawksbill Turtle and the Green Turtle are the most abundant species nesting on the beaches of the mainland and islands of the countries of the Arabian Peninsula, including the United Arab Emirates (UAE) (ROSS & BARWANI 1982, AL GHAISS et al. 1998, PILCHER 1999, AL GHAISS & FRAZIER 2001, MOBARAKI 2004, REES & BAKER 2006). Because of the worldwide decline of its population, *E. imbricata* is classified as "Critically Endangered" (CR) (IUCN 2009) and is recommended for protection and conservation. Because of growing urbanisation along the coast of UAE, Oman, Iran and other neighbouring countries, and other increasing anthropogenic activities including sporadic catching incidences on and off the shore, the foraging and breeding habitats of marine turtles in the area are under great pressure (AL GHAISS & FRAZIER 2001, MOBARAKI 2004, REES & BAKER 2006). Since there is a gap in our knowledge of the nesting process and biology of the turtles visiting this area, the present study was undertaken to collect information on the nesting biology and ecology of the Hawksbill Turtle nesting on two islands of the UAE.

Material and methods

The study was carried out on two islands, Jarnain (24°55'N, 52°51'E) and Bu Tinah (24°37'N, 53°02'E), located in the north-west of the UAE coast in the Arabian (Persian) Gulf (Fig. 1). Nei-