

MONITORING AND CONSERVATION OF THE LARGEST LOGGERHEAD TURTLE (CARETTA CARETTA) NESTING POPULATION IN AFRICA: SUCCESSES AND CHALLENGES

Nuria Varo, Pedro López, Óscar A. López, Cristina Vázquez, Lluís Ballell, Daniel Cejudo and Luis F. López-Jurado

Universidad de Las Palmas de Gran Canaria, Tafira, Gran Canaria, España.

Abstract

The Republic of Cape Verde is situated about 500 km off the coast of Senegal, West Africa. The islands of Sal, Boa Vista and Maio constitute the Eastern group and harbour the most important nesting beaches for loggerhead turtles in the Archipelago. During 1998-2004 nesting seasons, fieldwork has been focused on the eastern beaches of Boa Vista and, occasionally, in other beaches of Boa Vista and in the islands of Maio, Sal and Santa Luzia. The main study area includes a total extension of 3.1 km of suitable nesting beaches. All through these years, a tagging program has been carried out, alongside recording of biological data and monitoring of nests. Daily beach surveys have been carried out since 2001 in order to record the number of sea turtle tracks and nests over the nesting seasons. The mean SCL (75.8 cm) of female nesting loggerheads was similar to that of Mediterranean specimens. Currently, a total number of 3,968 nesting females have been tagged in the island of Boa Vista. The remigration interval mean value was 2.4 years, with a range of 1 to 6 years. The inter-nesting interval was 14.5 days. Clutch size averaged 83.2, with a maximum of 140 eggs. The clutch frequency ranged from 1 to 7 per year, with a mean value of 2.3 nests per female. Mean incubation period for the different seasons ranged from 54.2 days in 2000 and 60.9 days in 2002. The ghost crab appears to be the most important predator of eggs and hatchlings. The nesting season runs from June to October, though there may be some seasonal variations. Mean nesting success was 28.9%. The number of nests per season in the 3.1 km of the study area averaged 1,771. The highest density corresponded to the 2004 season with a total of 2,728 nests. Taking into account some sporadic surveys conducted in other beaches of the island and in those of Maio, Santa Luzía and Sal, we estimated that the number of nests in the whole Archipelago could be as high as 15,000 per season, which correlates to about 4,000 breeding females each year. Although a lot of work is still necessary, we suggest that the Cape Verde loggerhead nesting population is likely to be the largest in Africa and is certainly one of the most important in the world. Human predation (direct hunting of nesting females and adult males at sea and egg harvesting) has been identified as the most important threat to the population. Today, the existing law for the protection of Fauna and Flora of Cape Verde protects these marine reptiles all year round. Even so, harvesting of adults and poaching of nests are still common in the archipelago and although some conservation measures are being applied, more effort is required from local and national authorities in order to preserve this important sea turtle population.