

Marine Turtle Newsletter

Green Turtle, *Chelonia mydas* in the Island of Poilão, Bolama-Bijagós Archipelago, Guinea-Bissau, West Africa.

Olívio Fortes¹, Antônio José Pires¹ & Claudio Bellini²

¹*INEP-CEATA - Caixa Postal 112, Bissau, GUINEA-BISSAU*

²*Projeto TAMAR/IBAMA - FN - Caixa Postal 50 - Fernando de Noronha - PE 53990-000, BRAZIL,
(E-mail: tamarfn@elogica.com.br)*

The Bijagós Archipelago consists of approximately 80 islands, of which only 21 are permanently inhabited, and is located between 10° 43' - 11° 40' N and 15° 20' - 17° 00' E, occupying an area of approximately 11 000 km² (Fig. 1). Sand banks and mud flats make up a large part of the area. In April 1996, the Bijagós Biosphere Reserve was created to protect the unique natural resources, biodiversity and high natural productivity of the region. The Reserve allows for sustainable development and the integration of the Bijagós community with the environment.

In November 1996, Projeto TAMAR/IBAMA (Brazilian Sea Turtle Conservation Program) was invited by the National Institute of Study and Research - Center of Environmental Studies and Applied Technology (Marine Turtle Project INEP-CEATA) and the World Conservation Union (IUCN), to assist in organizing data and developing a methodology for data collection at nesting sites within the archipelago. TAMAR was chosen due to language advantages (Portuguese is spoken in Brazil and Guinea-Bissau) and due to the similarity of conditions in both areas.

Observational work and research were concentrated on Poilão island, located southwest of the main archipelago. This site had previously been identified as important for marine turtle research in the Bijagós Archipelago (Limoges & Robillard 1991). Data were collected in 1994 and 1995 on the Island of Poilão, by the INEP-CEATA Marine Turtle Project. In 1994, monitoring began on 7 July and ended on 22 September, with a total of 900 records (observed activities) made during 66 nights of surveying. In 1995, observations began on 14 June and ended on 24 October, with a total of 2611 activities observed during 93 nights of surveying. Results are summarized in table 1:

The reduced number of females tagged in 1994 is probably partially due to the low tagging effort made in this year (66 days) compared to 1995 (93 days). However, this lower surveying effort does not entirely account for such a difference.

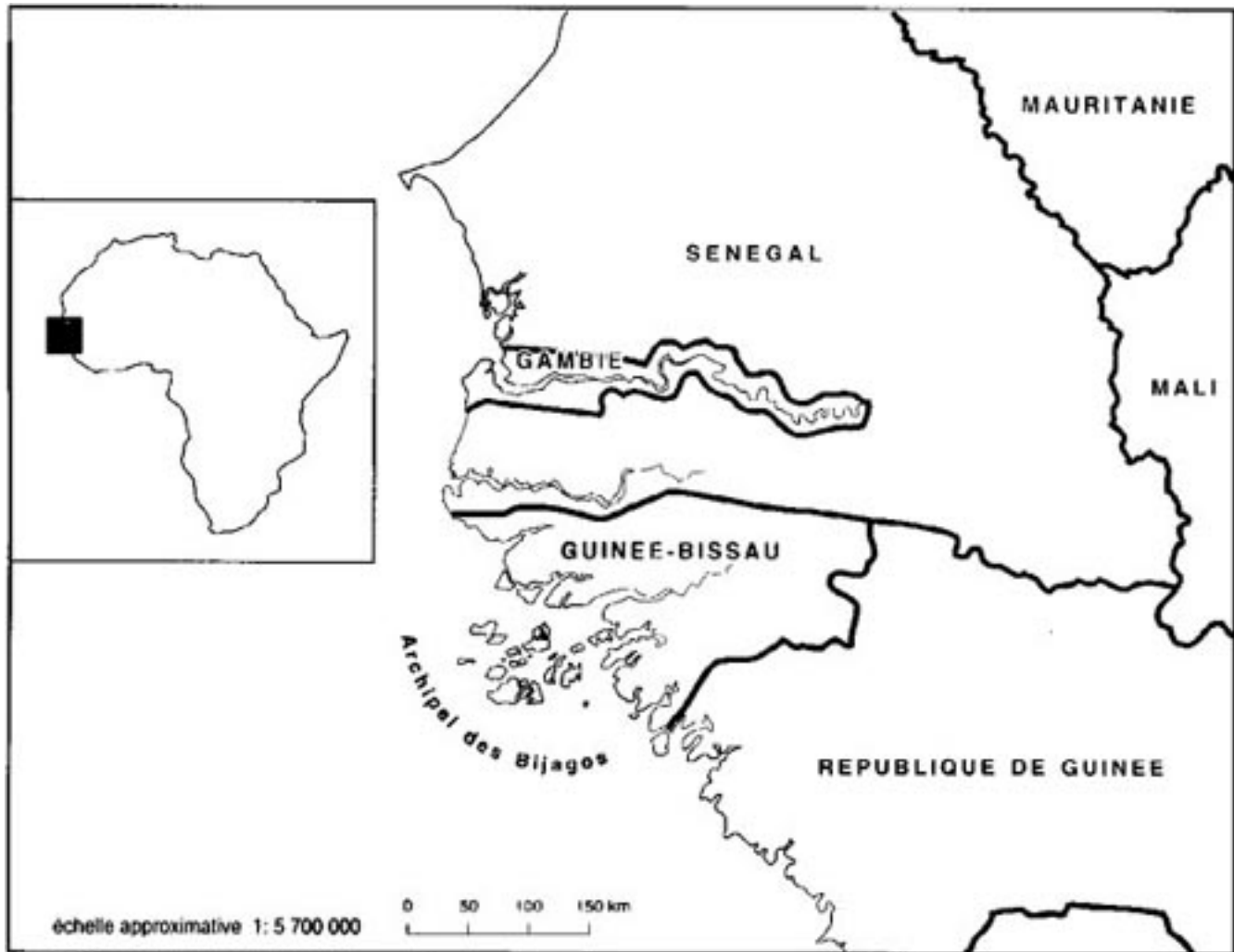


Figure 1. Location of the Bijagós Archipelago (Source: IUCN-INEP-UNESCO 1996).

Table 1 - Summary of the data collected during the 1994 and 1995 reproductive seasons.

	1994 SEASON	1995 SEASON
Number of activities observed	900	2611
Number of females tagged	314	1651
Species	311 <i>Chelonia mydas</i> 3 unidentified	1650 <i>Chelonia mydas</i> 1 unidentified
Mean curved carapace length (m) (\pmSD)	1.018 \pm 0.06 n= 311 (range 0.78-1.20)	1.037 \pm 0.05 n=1650 (range 0.81-1.21)
Mean curved carapace width (m) (\pmSD)	0.939 \pm 0.076 n= 311 (range 0.67-1.12)	0.961 \pm 0.05 n=1650 (range 0.63-1.13)

The peak reproductive period for *C. mydas* nesting on Poilão Island appears to be between July and October (Figure 2). Expanding the survey effort and recording the number of activities resulting in nests between April and December is necessary to determine the actual size of the nesting population utilizing this site in any given season. In addition, night time surveys were not conducted on all beaches of the island. Both of these factors suggest that the population of *C. mydas* nesting on Poilão island is far greater than the number of females tagged at this site. By

the end of the survey period many untagged females were still being discovered, suggesting that this was the case.

On the Poilão Island, *Varanus sp.*, ("monitor lizard") were observed preying upon marine turtle eggs. *Ocypode cursor*, ("ghost crab") and *Gypohierax angolensis*, ("palm-nut vulture") were also observed preying upon hatchlings.

Based on these preliminary data we believe that the *C.mydas* population of Poilão Island represents a large number of reproducing females. This area is one of the most significant nesting sites in the Atlantic and essential to the conservation of this species on the African continent. A more detailed study is likely to demonstrate this site as being among the most important for this species in the world.

Information gathered suggests that the greatest threat to *C.mydas* in Guinea Bissau is the capture of turtles (adults, sub-adults and juvenile) in fishing nets. *C.mydas* is considered a delicacy in the region.

Finally, considering the region's scenic beauty and potential for tourism, we suggest the creation of a National Marine Park, a conservation unit that allows sustainable development and use. The conservation unit should include Meio, Cavalos, João Vieira and Poilão Islands in order to ensure the protection of this important sea turtle nesting site (Bellini 1996).

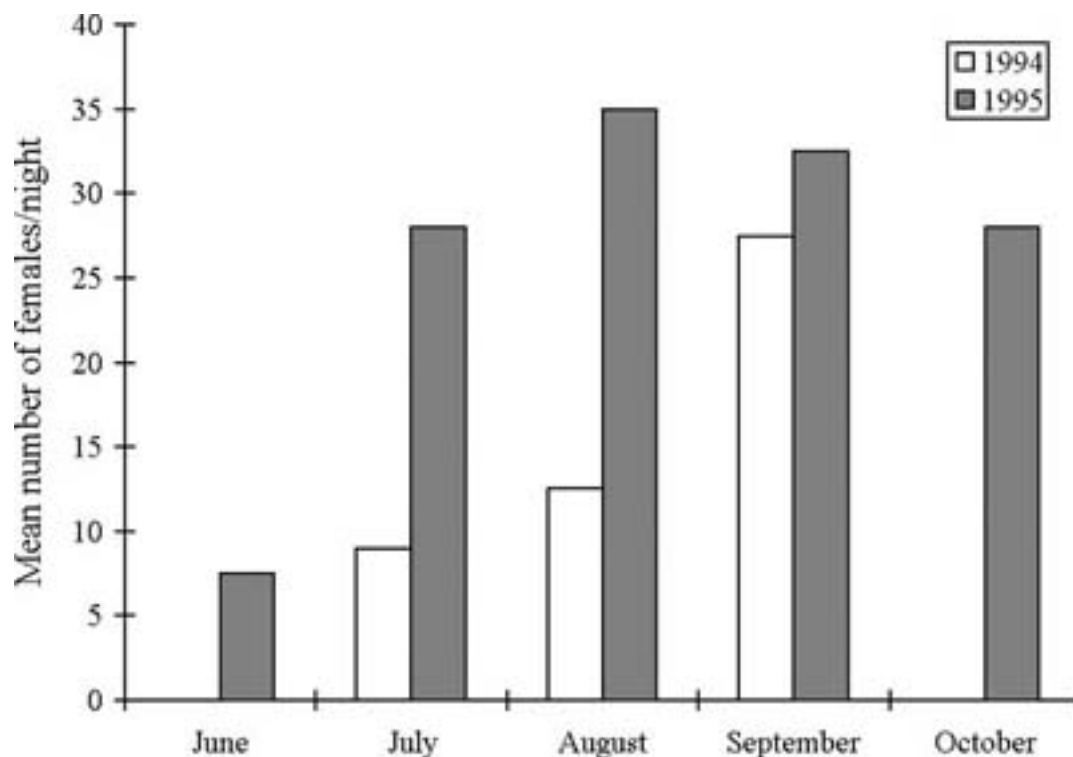


Figure 2. Mean number of females observed per night for the months of surveying in 1994 and 1995.

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