First Record of Green Turtle (*Chelonia mydas*) Nesting in Almofala, Western Coast of Ceará, Brazil

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Green turtles (*Chelonia mydas*) are globally distributed throughout tropical and subtropical waters along continental coasts and oceanic islands. Early juveniles spend most of their lives in pelagic waters, thereafter, they move to shallow coastal areas, usually associated with submerged banks of sea grass and algae. In the Atlantic Ocean, major green turtle rookeries are found in Florida, Ascension Island, Tortuguero (Costa Rica), Aves island (Venezuela), Suriname, and Brazil, among others (Penaloza, 2000; Broderick *et al*. 2006; Chaloupka *et al.* 2008; Almeida *et al.* 2011; Naro-Maciel *et al.* 2014). The main nesting sites along the Brazilian coast are in the oceanic islands of Trindade (Espírito Santo), Atol das Rocas (Rio Grande do Norte) and Fernando de Noronha (Pernambuco). However, occasional nesting has been documented in the mainland coasts of Bahia, Rio Grande do Norte, Sergipe and Espírito Santo States (Almeida *et al.* 2011).

The state of Ceará is an important feeding ground for five species of sea turtles (*Chelonia mydas, Caretta caretta, Dermochelys coriacea, Lepidochelys olivacea* and *Eretmochelys imbricata*). However, *C. mydas* is the most common species. The area hosts a mixed stock of green turtles originating from Suriname, Ascension Island, Trinidad and Tobago, Nicaragua and French Guiana (Lima *et al*. 2003; Naro-Maciel *et al*. 2006; Marcovaldi *et al*. 2010; Lima *et al*. 2013).

Almofala Beach is a small fishing community located on the west coast of Ceará State, with approximately 11,500 inhabitants, most of them having descended from Tremembé Indians, whose livelihoods involve fishing and agriculture. According to fishermen, about 50 years ago, sea turtle nesting used to occur on a regular basis. However, a long history of exploitation and direct consumption of sea turtles eggs and meat have depleted whole populations.

On 8 March 2017 a green turtle nest was found on Almofala Beach, 2.9117 °S, 39.8466 °W, located near the city of Itarema, in Ceará, Northeastern Brazil. The nest was left *in situ* and monitored closely until it hatched on 4 May - 57 days after it was laid. The nest was then excavated to confirm the species identification, to calculate hatching success and to release hatchlings that could not exit the egg chamber by themselves.

The clutch size was 130 eggs, of which 64 produced live hatchlings, 63 were undeveloped eggs (with no detectable sign of embryonic development) and three were unhatched dead embryos. The hatching success of the eggs was estimated to be 49.2%. The hatchlings were released in a public ceremony with the Mayor of Itarema and other government members. The event was part of a strategy for creating awareness about sea turtle conservation in the region.

In 1993, Projeto Tamar established a research station in Almofala aiming to reduce incidental capture in fisheries. The protection strategies as well as its initiatives to bring fisher and local community participation into the conservation efforts have brought great success to the protection of sea turtles in Brazil (Silva *et al.* 2016). Flipper tagging data have indicated a connection between Ceará and the Caribbean, regarding this species. Genetic analyses based on mitochondrial DNA indicated that juvenile green turtles found at Almofala originate mainly from Ascension Island, but also from Matapica (Suriname), Aves Island (Venezuela) and Tortuguero (Costa Rica), and possibly from other nesting areas in the Atlantic, such as Trindade Island (Lima *et al.* 2013).

The results presented here place the conservation of sea turtles off the Ceará coast in an international context. Although the exact reason for sporadic nesting remains unknown, protecting areas of occasional sea turtle occurrence is extremely important for the conservation of these animals in the future.

Acknowledgements. The authors thank Raimundo Lelé, for kindly informing us about the green turtle nest and Dr Daphne W. Goldberg for the helpful comments and careful reading of the manuscript. Projeto TAMAR is officially sponsored by Petrobras. Pró-TAMAR Foundation is the main executor of the National Action Plan for the Conservation of Sea Turtles in Brazil (NAP), from ICMBio (Chico Mendes Institute for Biodiversity Conservation)/ MMA. Data collection was authorized by ICMBio, through special license number 14122-12, issued by Biodiversity Authorization and Information (SISBIO).

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