

Marine Turtle Newsletter

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Loggerhead sea turtle incidentally captured in Ceará, Brazil and later seen nesting in Quintana Roo, Mexico (see page 16). Photo credit: Banco de Imagens, Projeto TAMAR/ICMBIO_CE.

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Second Record Of Tagged Loggerhead Moving Between South And North Atlantic

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On 24 May 2013, an adult female loggerhead was observed nesting on X'cabel Beach, in Quintana Roo, Mexico (20.341126 °N, -87.343965 °W). The turtle measured 92.6 cm curved carapace length (CCL) and 81.6 cm curved carapace width (CCW). This turtle had one Inconel tag (type 681, National Band Co., Kentucky, USA) on its left front flipper with the unique identifier BR38046. There were no other tags or tag scars visible. The turtle laid 59 eggs, which were relocated to a central hatchery for incubation (one egg was deformed). At the end of incubation, 21 eggs produced live hatchlings that were released in the ocean; the other eggs remained unhatched.

The turtle had been originally tagged on both front flippers on 08 March 2005 in Almofala, Ceará, Brazil (-2.9010 °S, -39.8378 °W, see cover photo). It had been captured in a fishing weir known locally as a curral de pesca. Turtles are regularly captured incidentally in this gear and are released unharmed by local fishers (Marcovaldi et al. 2001). These captures also provide an excellent opportunity for various types of research, including mark recapture, telemetry, and conservation genetics (Marcovaldi et al. 2001; Godley et al. 2003; Naro-Maciel et al. 2007). The carapace size of this turtle increased 15.8 cm over the 8 year period between tagging in Brazil and recapture in Mexico. This corresponds to 1.98 cm/yr growth rate, which is similar to growth rates reported for subadult loggerheads in the NW Atlantic (Braun-McNeill et al. 2008).

Satellite telemetry data have shown that post-nesting loggerhead females from Bahia, Brazil use the coastal waters off of Ceará as foraging areas (Marcovaldi et al. 2010). This is only the second reported tag return of a loggerhead turtle moving across the Equator in the Atlantic Ocean. The other was a captive-raised turtle that was released as a juvenile from Espírito Santo, Brazil and was recaptured 3 years later in the Azores (Bolten et al. 1990). Interestingly, genetic analyses of tissue samples collected from loggerheads foraging in waters of the Rio Grande Elevation, a submarine ridge off of southern Brazil, suggested that some turtles had originated from rookeries in the NW Atlantic and Mediterranean (Reis et al. 2010). It may be the case that as more juvenile loggerheads are tagged in Brazil, there may be more observed tag returns in the future, showing turtles moving from South Atlantic foraging grounds to North Atlantic nesting sites.

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