

## **Population Assessment**

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### **GREEN TURTLE NESTING ON TRINDADE ISLAND, BRAZIL**

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Trindade Island is on the eastern end of the Vitória-Trindade submarine Ridge (20°30'S, 29°20'W), 1140 km off the coast of the state of Espírito Santo, southeastern Brazil. Green turtle (*Chelonia mydas*) nesting was monitored intermittently during 17 seasons, from 1982 to 2009. Different expeditions had distinct goals such as tagging females, assessing hatching success, mapping emergences both spatially and temporally, or estimating the proportion of nests in relation to the total tracks. Consequently, there is a large variation in data collection during the 17-year span. The nesting period was completely surveyed in six seasons (1994/95, 1995/96, 1999/00, 2006/07, 2007/08 and 2008/09). The nesting period is from December to April (more than 95% of records), with a peak between January and March. The number of nests was estimated from direct observations on the proportion of nests to total track counts in the four main nesting beaches, which comprise more than 90% of records, during four different seasons (99/00, 06/07, 07/08 and 08/09). These estimates were then used to estimate the total number of nests from track counts in other nesting seasons. Estimates varied from 1113 nests (for only 2 beaches sampled) to 5176 nests (9 beaches sampled) per year. The number of nests makes the Trindade nesting population among the most important known Atlantic nesting sites. Although available information suggests a stable population, tag recoveries from different points along the Brazilian coast highlight the need for conservation measures, which must be applied thousands of kilometers away from the nesting beaches to maintain the green turtle nesting population in Trindade.

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### **MACHALILLA NATIONAL PARK, A CRITICAL NESTING SITE FOR HAWKSBILL (*ERETMOCHELYS IMBRICATA*) AND GREEN (*CHELONIA MYDAS*) SEA TURTLES IN THE EASTERN PACIFIC**

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All sea turtle species are endangered to some degree globally. Therefore, it is critical to understand the dynamic of the populations during the different stages of their life cycles. Equilibrio Azul, in coordination with the Ministry of the Environment of Ecuador started a sea turtle monitoring program in the beaches of the Machalilla National Park (MNP) in 2007. The purpose of this program is to understand the status of the population of sea turtles in this protected area and to establish and protect the main nesting grounds. After selecting the two most important sites in the National Park an intensive night patrolling program was begun at La Playita beach and Drake Bay. The results of this three year program showed La Playita as the only nesting beach identified for the critically endangered hawksbill (*Eretmochelys imbricata*) in South America. In the 2009-2010 season we confirmed a total of 10 nesting females and protected 28 nests, along with seven nests of green sea turtles (*Chelonia mydas*) and one nest of olive ridley (*Lepidochelys olivacea*).