

SEA TURTLES

The eastern Atlantic juveniles of loggerhead sea turtle: Where do they come from and how do they distribute?

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After hatching, loggerhead sea turtles (*Caretta caretta*) enter in the sea and start the ocean phase of their lives, where juveniles inhabit pelagic feeding areas during 6-12 years. In the Atlantic Ocean, the central and the eastern feeding grounds harbor loggerhead juveniles from different nesting populations, constituting the designated mixed stocks. We studied the distribution of juveniles in the Eastern Atlantic comparing mtDNA sequences from canarian individuals with samples from Azores, Madeira and the Atlantic coast of Andalusia. The Canary Islands mixed stock analysis (2001-2004) revealed that they are mainly originated in South Florida (0.74), Northwest Florida (0.02), Quintana Roo (0.19) and Northeast Florida-North Carolina (0.03). Few individuals were not assigned to any considered nesting populations and some of them may have their origin in Cabo Verde nesting beaches. The relevant contribution of the Mexican population to the southern areas, like Canary Islands (0.19) and Madeira stocks (0.13) could be explained with the possible influence of magnetic parameters on the juveniles' distribution. The minor contribution of this southern nesting area (Mexico) to Azores and Andalusia stocks, corroborate this idea (0.03 and 0.04 respectively). We also investigated the temporal and size class variation of juveniles in the Canary Island foraging ground. During 2005-2006 we found an important number of haplotypes (30%) that were almost not present in earlier years, 2001-2004 (1%). Our results show for the first time, a temporal variation in a feeding area and a geographical structure in the juveniles' distribution.

