

## GENETIC STRUCTURE OF NORTH ATLANTIC LOGGERHEAD SEA TURTLES: INSIGHTS FROM EXPANDED MITOCHONDRIAL ANALYSES

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In the Atlantic Ocean, the Cape Verde Islands and the southeastern United States are important nesting areas of the globally endangered loggerhead sea turtle (*Caretta caretta*). These turtles also occur in coastal waters of the Canary Islands and North America. The linkages among loggerhead sea turtles occurring in these areas are a focus of our ongoing genetic research. Elucidating relationships among populations throughout a species' range is important for conservation purposes, and for understanding their biology. In studies using previously available mtDNA control region primers, the CC-A1 haplotype was commonly found at our study sites. In the present research, we examine the utility and applications of newly designed primers that amplify a longer segment of the mtDNA control region (Abreu *et al.* 2006), particularly in distinguishing among these CC-A1 haplotypes. To this end, we analyze control region sequences (804 bp) from adult females nesting at Cape Verde (n=50) and Georgia USA (n=20), and from individuals sampled in the waters of the Canary Islands (n=30) and North Florida USA (n=24). The number of haplotypes, haplotype diversity (h), nucleotide diversity (Pi), haplotype frequencies and fixation indices (Fst) were obtained and compared with results using shorter sequences. We discuss new insights into population connectivity from the analysis of the longer mtDNA sequences.