Mitochondrial DNA Control Region Revealed a Single Genetic Stock Structure of *Scomberomorus commerson* Lacépède (1800) in the Northern Tanzania Coastal Waters

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The present study used mitochondrial DNA control region to investigate the genetic stock structure and phylogenetic relationship of 38 individuals of Spanish mackerel *Scomberomorus commerson* from the two localities in the northern Tanzania coastal waters. The study revealed that the Spanish mackerel were characterized by high levels of mitochondrial DNA genetic diversity at both haplotypes and nucleotide levels, indicative of large population size. The AMOVA results (FST = 0.0011) were statically low, indicating lack of genetic differentiation between populations (p = 0.925). Furthermore, AMOVA analysis showed that 99.50% of the total molecular variance was distributed within the populations and 0.5% distributed between populations. The Median-Joining network revealed a star-like median network; indicative of similar evolutionary history for the collected samples and existence of a recent historical population expansion. The present study recommends a single stock model for management of Spanish mackerel in the northern coastal waters of Tanzania. However, considering the migratory nature of this species, a co-management between coastal nations with further studies on the genetic stock structure covering large geographical areas is recommended if sustainable exploitation is to be achieved.