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Meristic, morphometric and genetic characterization of four different fish species (*Chrysichthyes nigrodigitatus*, *Liza falcipinnis*, *Pseudotolithus spp.* and *Tilapia spp.*) from Lagos lagoon, Nigeria

Ashiru Olayinka Murtala

University of Lagos, Akoka Lagos Nigeria

Genetic characterization is the first step to be considered in suitable conservation and management of aquaculture especially for breeding purposes. Meristic, morphometrics and genetic characterization of four different fish species *Chrysichthyes nigrodigitatus*, *Liza falcipinnis*, *Pseudotolithus spp.* and *Tilapia spp.* collected from Liverpool (Apapa) and Makoko stations of Lagos lagoon was carried out. A total of eighty samples were collected from the two stations. Meristic counts and Morphometric measurements were carried out in order to ascertain and justify the possibility of genetic diversity among them. All measurements taken were standardized in order to eliminate any variation resulting from allometric growth using statistical approach. One way analysis of variance (ANOVA) was used to test the level of variation between and within the fish population. At 5% ($F \geq 0.005$) confident interval, variations observed were statistically significant with respect to locations. This suggests that location confers a level of variation in the morphology of the different fish types between the populations but not within the population studied. Data generated was used to construct a dendrogram which showed that all the species originated from two major clusters. This further indicates that the four different fish species are taxonomically separable based on the methodology implored in the studies which further justified their taxonomic classifications.

Biography

Ashiru Olayinka Murtala is a Ph.D. student in the department of Cell Biology and Genetics University of Lagos. He is currently studying for a doctoral degree in Cell and Molecular Biology. He holds a Master of Science degree in Cell and Molecular Biology and a Bachelors of Science degree in Cell Biology and Genetics also from the University of Lagos, Nigeria. He has been part of two major research groups, both in the department of Cell Biology and Genetics, and at the Nigerian Institute of Marine and Oceanographic Research (NIOMR). He has two papers yet to be published.

omoashiru@gmail.com