

# MORPHOLOGICAL AND MOLECULAR DIFFERENTIATION IN TILAPINE GROUP FROM TWO WATER BODIES IN EKITI STATE

**AROWOLO TEJUMOLA WEMIMO**

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**Mr J. O. Oyewumi**

Supervisor

## **ABSTRACTS**

Morphological variation of the cichlid fishes *Oreochromis niloticus* and *Sarotherodon galilaeus* from two hydrologically distinct localities in the Ekiti state, Southern Nigeria was studied. Morphometric and meristic analyses were conducted on 50 specimens each of *Oreochromis niloticus*, *Sarotherodon galilaeus* and in each water body by measuring ten morphometric characters and ten meristic counts. The data were analysed using stepwise discriminant analysis, multivariate analysis of variance (MANOVA) and univariate analysis of variance (ANOVA) after allometric test. Biochemical variations were also assessed by the Random Amplified Polymorphic DNA-Polymerase Chain Reaction (RAPD-PCR) using six random 10-mer primers in 10 individuals from each of the two locations. Primers which gave polymorphism were selected. The result of stepwise discriminant analysis on morphometric and meristic features revealed observable degrees of variability among stocks in each species. However, features that are responsible for this variability were found to differ among species. In *O. niloticus*, body weight (0.645), body depth (0.486) and snout length (0.417) were responsible for differentiations. While in *S. galilaeus* body depth (0.436), eye diameter (0.344), and caudal peduncle depth (0.399) were responsible for differentiations.