Taxonomy and Genetic diversity of genus Lethrinus in Mozambique

Erica Helena Tovela
Email: etovela@gmail.com
Natural History Museum, Maputo
Travessia do Zambeze, Nr104

ABSTRACT

The genus *Lethrinus*, emperor fishes contains the largest number of species (28 worldwide) when compared to the other genera within the entire Lethrinidae family. There are associated with coral reefs and seagrass. There’s an uncertainty on the number of *Lethrinus* species in Mozambique, considering that 14 species from the genus *Lethrinus* are described, however recent studies showed the presence of 16 species in Vamizi. Some species have been misidentified due to similar morphologic patterns. In addition genetic analyses are rare in the studies for this genus in Mozambique. Lack of information on the taxonomy, genetics and distribution of species of the genus Lethrinus contributes to the incorrect identification of the species. Genetic analyses to barcode the entire genus based on mitochondrial DNA (mtDNA) and Dloop sequence collected from gene Cytochrome Oxidase I (COI) will be used to complete these gaps in the identification of these species. The taxonomic analyses will be performed using geometric morphometric approach MORPHOJ 1.05f, which is based on the body shape of the fish. Also descriptions and morphological features will be produced using the Delta software (Dallwitz, 2018: https://www.delta-intkey.com/www/programs.htm). The results of this project will allow the precise identification of species of the genus *Lethrinus* based on the barcode and morphology keys; understand the importance to the description revision.