

Segun O. Oladipo<sup>1</sup>, Lotanna M. Nneji<sup>2</sup>, Edah Bernard<sup>3</sup>, Adeola.O. Ayoola<sup>4</sup>, Kehinde, M. Adelukun<sup>5</sup>.

<sup>1</sup>Department of Zoology, Kwara State University, Nigeria. [Segun.oladipo@kwasu.edu.ng](mailto:Segun.oladipo@kwasu.edu.ng)

<sup>2</sup>Department of Biology, Howard University, Washington DC, USA.

<sup>3</sup>Nigerian Institute of Oceanography and Marine Research, Victoria Island, Nigeria

<sup>4</sup>Department of Evolutionary Anthropology, Duke University, USA.

<sup>5</sup>Federal College of Wildlife Management, New Bossa, Nigeria

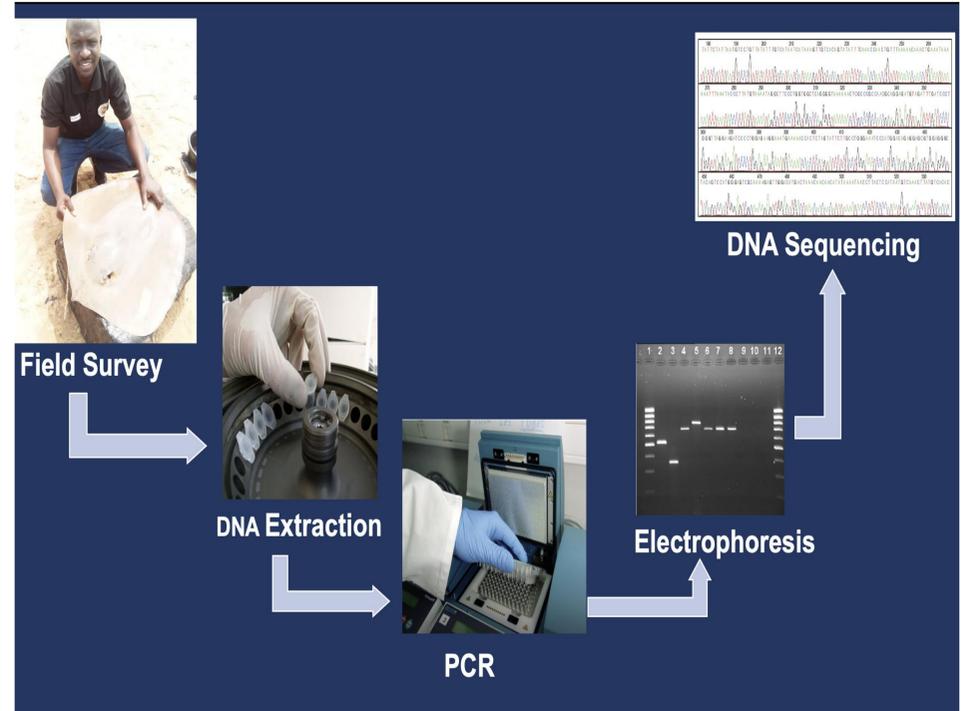
## INTRODUCTION

- ✓ Nigerian coastal has one of the richest diversity of fishery resources in Africa (FMOE, 2010).
- ✓ However, anthropogenic activities have influenced the population and status of Nigerian fishes.
- ✓ Efforts geared towards management of Nigerian fisheries resources are greatly hindered due to species identification.
- ✓ very few studies have been conducted on the use of genetic tools (e.g., Cytochrome C Oxidase Subunit 1 -CO1; Nicotinamide Adenine Dinucleotide) in the management of Nigerian fish.

## AIM

- Identify Nigerian coastal fishes using genetic tools;
- Improve understanding of diversity of Nigerian coastal fishes.

## METHODOLOGY



## RESULTS

### A. Fish Diversity (>100 species)

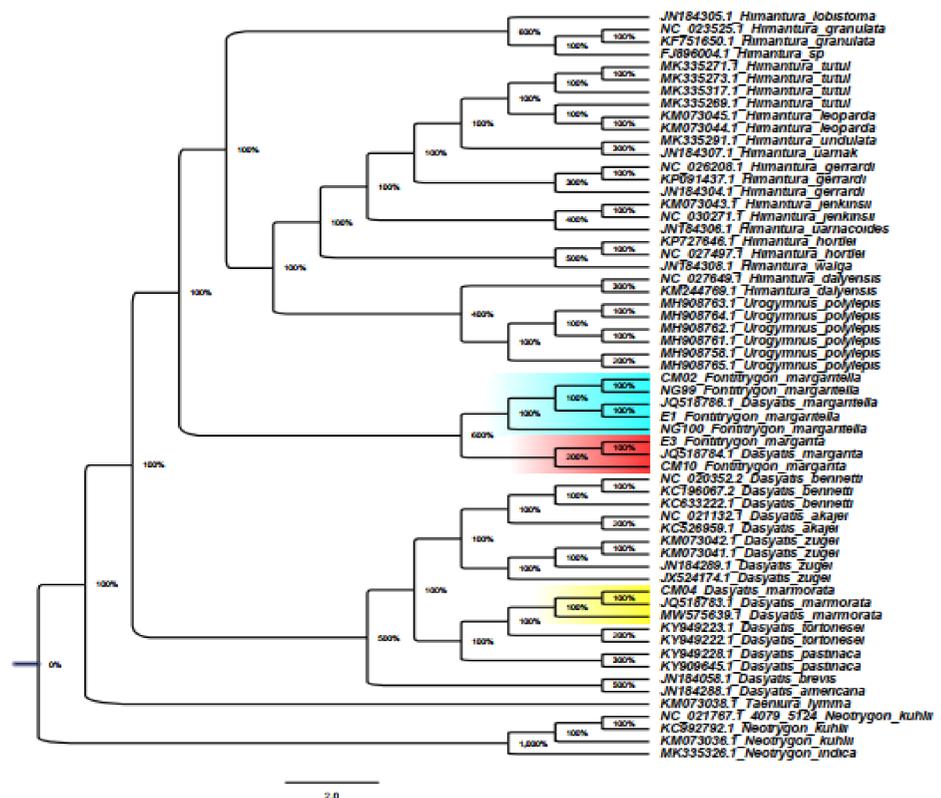


Figure 1: Phylogenetic tree inferred from maximum likelihood analysis of Stingrays species based on mtDNA NADH2 data set. Values above branches are the bootstrap supports. Individuals highlighted without accession number were newly sequenced, whereas others were downloaded from the NCBI

## DISCUSSION

- The COI sequences of the fishes were generated in Nigerian for the first time, e.g., *Cynoglossus senegalensis*, *Sphyræna afra*, *Batrachoides liberiensis*, *Lagocephalus laevigatus*, *Selene dorsalis*, *Hemicaranx bicolor*, *Pseudotolithus epipercus*, *Fontitrygon margarita*, *Fontitrygon margaritella*, *Dasyatis marmorata* etc.
- The genetic tool reveals complexity in separation of Nigeria rays and requires further studies.

## CONCLUSION

Our study concludes that incorporating genetic tool is crucial in the management of coastal water fishery resources in Nigeria. However, efforts geared towards developing an exhaustive DNA barcode reference library will ensure broad taxonomic coverage where species of both local and global conservation concern are well represented.

## FUNDING

