Lake Victoria's Nile Perch on the Brink of Collapse

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Introduction

Uganda's fisheries heavily depend on Lake Victoria and three key species: Nile perch (NP), Dagaa, and Tilapia. NP is the most economically important, accounting for 60% of fish export earnings and engaging half of the country's fishers.

Beyond its economic role, NP fisheries are also crucial for employment, food security, and ecological purposes. However, despite its significance, concerns over declining stocks and possible overexploitation are growing, however, reports remain conflicting, and future trends remain uncertain.

Rationale

- There are mixed opinions on NP abundance
- Insight into present and future trends of NP is needed
- Sustainable stock management is a priority

Objectives

- To analyse current trends of NP catches in Lake Victoria
- Project the future trends of Nile perch
- Propose viable management practices

Methodology

Study Area

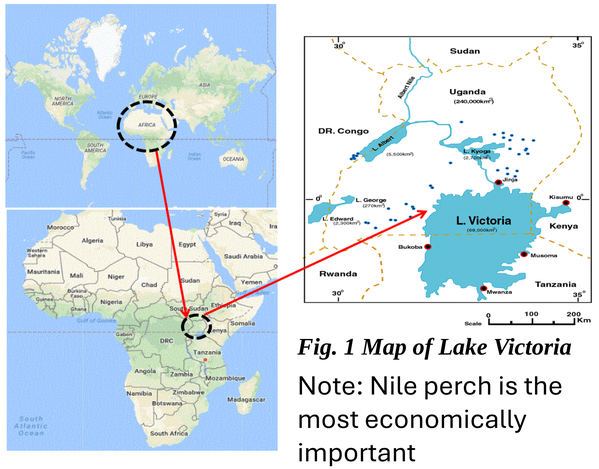

Fig. 1 Map of Lake Victoria

Note: Nile perch is the most economically important

Image: Nile perch (*Lates niloticus*) Source: UFPEA

Data sources and analysis

- Data from CAS, Frame Surveys, FAO, and literature
- Simple linear regression was used to identify and project trends
- CPUE served as a proxy for stock abundance
- Key informant interviews supported findings and guided recommendations

Results

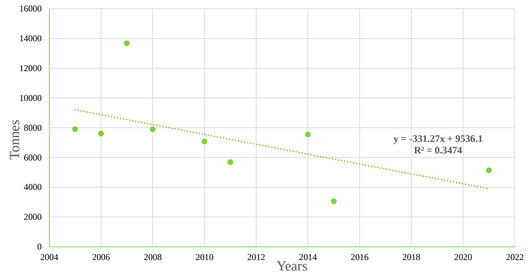

Fig 2: Estimated average monthly catches for Nile perch in Lake Victoria, Uganda, with extrapolation (Source CAS 2005 to 2021)

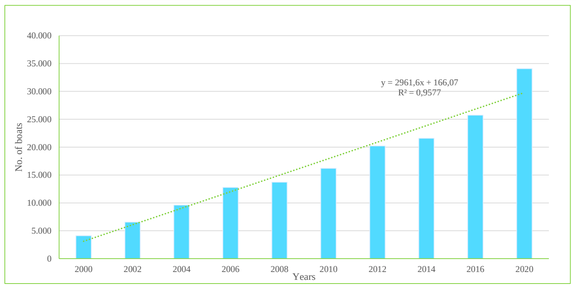

Fig 3: Number of boats using outboard engines on Lake Victoria, Uganda

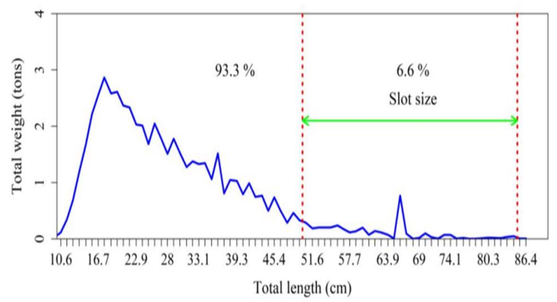

Fig 4: Contribution of individual size classes of Nile perch to the total biomass in L.Victoria during the 2022 hydroacoustic survey

Conclusion

- Nile perch catch shows a linear decline (Fig. 2)
- Evidence suggests recruitment & growth overfishing (Fig. 4)
- The trend is expected to continue due to increasing effort (Fig. 3)
- **Nile perch stock may collapse by 2033**
- Lake Victoria risks return to being dominated by low-value fish

Recommendations

- Reduce effort and enforce closed seasons
- Protect breeding areas and restore co-management systems
- Combat illegal fishing and trade effectively
- Establish strong data collection and management systems
- More research on the effects of pollution
- Further research on current stock status

Acknowledgements