

CLARIAS STUDIES

by

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This investigation deals broadly with some selected aspects of the biology and ecology of most of the available clariid species in various water bodies in Uganda. The programme which was initiated and commenced in March 1976 was prompted by a number of factors among which the following are considered most important:-

1. The taxonomy of a number of species in the family Clariidae is still rather doubtful. This calls for thorough re-examination of the family.
2. In various localities clariid catfishes form relatively important fisheries at both subsistence and commercial level. This calls for systematic research work to provide scientific information necessary for more effective exploitation and management strategies.
3. Being some of the commonest fish species in East Africa, clariids form a very important source of protein. Limited literature on their biology and ecology is available; so that an attempt to improve on the known scientific information would be appropriate.
4. This investigation embodies four areas of study considered most relevant in so far as present requirements are concerned. These are population characteristics, reproduction, age and growth, and food and feeding habits.

Throughout the year most effort was put in collection of biometric data in previously established sampling stations covering the Northern half of Lake Victoria. In the 3rd and 4th quarters of the year field work was however greatly retarded and a number of sampling stations were revised during the latter half of the year. Trawl fishing by the "IBIS" was the main source of data. Some specimens were obtained from gillnetting around the Napoleon Gulf and in the Kirinya Sewage Ponds. Whenever funds were available limited specimens were bought from commercial catches at Masese. Despite all this effort, it was found that monthly samples were very small and therefore analytical figures derived from them were rather questionable

Aquaria studies on growth of *Clariass mossambicus* which were commended in 1976 were interrupted by intermittent cuts in electricity supply to the aquaria rooms and shortage of fish food.

The preliminary results of this study are presented elsewhere in this report.

REVERINE FISH STUDIES

by

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Rivers and streams play an important role in the biology of many cichlid and non-cichlid fishes. Some of these species are purely riverine while others are anadromous (potamodromous?). Riverine fish investigations therefore are broad and mainly ecological studies on riverine and lake aspects in the life histories of those fishes concerned.

There were numerous problems affecting the East African Community and these determined the amount and nature of work that was carried out during the year.

The last trip to River Nzoia was undertaken early in March and specimens of anadromous and riverine fish were collected. In the laboratory, work on the taxonomy of *Barbus* and riverine species from the Nzoia River continued. This work was augmented by Drs: Bannister and Greenwood of the British Museum (Natural History). They examined material which included records of species which had not been reported in the Nzoia before, such as *Mastacembelus frenatus* and *Pseudocrenilabrus multicolor*. A complete list of species of non-cichlid fishes occurring in River Nzoia is given elsewhere in an appendix. The early part of the year was also used to prepare a paper "The River and Swamp Fishery of Lake Victoria" for the 6th Lake Fisheries Commission meeting held in Kisumu.

The food of the non cichlid fishes — mainly *Barbus* from the Nzoia continued to be investigated.

It was also possible to get specimens of *Barbus altianalis* from Napoleon Gulf for similar studies. Additional material came from the Bugungu stream. Hence, it was possible for the first time to describe the food of the smaller *Barbus* species such as *B. cercops*, *B. yongei* and *B. paludinosus*. The detailed results from these studies appear in a paper which has been accepted for publication.