

REVERINE FISH STUDIES

by

J.S. Balirwa

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

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.

Parasitic nematodes occurring in the guts of the fishes examined were collected and preserved but due to problems of identifying these nematodes, not much headway was made.

RESOURCE EVALUATION STUDIES OF LAKE WAMALA AND KIJANEBALOLA

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J.O. Okaronon

Fisheries resource surveys of Lakes Wamala and Kijanebalola which were started in 1975 were to continue in 1977. As was the case in 1975 and 1976, the planned quarterly surveys were aimed at providing information to generate enough scientific guidelines and advice for rational exploitation, management and utilization of the respective lake fishery resources.

Lake Wamala

Due to circumstances beyond control, it was not possible to survey Lake Wamala during 1977, the 5-inch (127 mm) minimum gillnet mesh size regulation and the maximum of 250 licensed canoes to operate on the lake continued to be in force.

Lake Kijanebalola

The rapid decline in the commercial importance of the *Tilapia* fishery in Lake Kijanebalola during early 1970's is evident from the reduced number of the commercial fishermen on the lake and the complete change to the *Haplochromis* fishery by the few local fishermen currently fishing on the lake. The problem of this relatively small lake (approximately 30 km by 2 km) remains that of decline in catch of *Tilapia* spp, the major fishery. Previously there have been four lake surveys conducted in May and July 1975 and two more in April and June, 1976. These surveys were aimed at attempting to investigate the possible causes of the problem of decline in catch and seasonal "disappearance" of *Tilapia* from Kijanebalola. In addition these surveys could provide information for management purposes.

During 1977 the fifth survey was conducted at the end of April using multifilament nylon gillnets as in the previous four surveys. The fish collected were analysed for length, weight, sex and gonad condition.

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