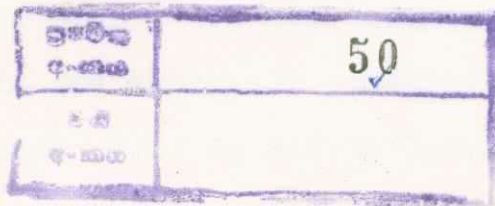




ISOLATION, IDENTIFICATION AND SOME  
CHARACTERS OF AEROBIC GASTRO-INTESTINAL BACTERIA  
OF  
TILAPIA MOSSAMBICA AND TILAPIA NILOTICA

By

S. KUSUMSIRI HAROLD SILVA



Department of Botany  
University of Kelaniya

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## SUMMARY

The freshwater fish of the genus Tilapia are becoming economically important as food fish in Sri Lanka. Bacteriological studies of such economically important fish are invaluable academically as well as technically. The nature of the gastro-intestinal bacterial flora of two freshwater fish (Tilapia mossambica and Tilapia nilotica) cultured under captivity, was investigated. Significant average viable bacterial counts were obtained by aerobic incubation, from both species of fish.

The majority of the total gut isolates was Gram-positive, where, Bacillus species, coccoid bacteria and organisms probably belonging to the 'coryneform' group occurred in highest incidence. Pseudomonas, Enterobacter and Aeromonas species were the predominant Gram-negative bacteria encountered. About 11.94% of the isolates was not identified at all.

The two fish species exhibited almost the same gastro-intestinal bacteria. Most of these were found to be similar to those found in water and soil. The occurrence of such bacteria could be correlated to the feeding habits of fish and they appear to be transient residents in these fish. Some atypical 'coliform' organisms were isolated in small numbers. They cannot be considered as indicators of faecal pollution of waters inhabited by these fish. Enteric bacteria known to be pathogenic to human beings and organisms implicated with food intoxications were not present among the gut flora of these fish.