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STUDIES ON SURVIVAL OF *SAROTHERODON NILOTICUS* AT DIFFERENT SALINITIES

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During cage culture trials using *S. niloticus* in a brackish water environment, high mortalities were observed when salinity rose beyond certain levels. Laboratory studies were therefore conducted to determine acceptable levels of salinities for various sizes of this species. Preliminary trials were conducted at salinities of 8.5, 17 and 26% with fresh water as control. Fish (25-30 mm length) were unaffected at 8.5% and 17% but died at 26% salinity. A second series was carried out with salinities 18, 20, 22, 24 and 26% using size groups ranging from 10-15 mm to 60-70 mm. Fish were observed continuously for 10 h and time of 50% mortality was recorded.

Below 20% only the 10-15 mm group was affected with 50% mortality recorded in 90 min. at 18% and 52 min. at 20%. Values for the 10-15 mm and 40-50 mm groups at 22% were 27 min. and 8 h respectively; at 24% values were 22 min. and 6 h 20 min. At 26% values were 22 min. and 3 h 45 min. Fish ranging from 50-70 mm were unaffected at 22% but showed 50% mortality in 8 h at 24% and 6 h at 26%. Studies on long term survival and growth are proceeding.

This study indicates that cage culture sites for *S. niloticus* should be located at points where salinities do not exceed 20% or culture should be planned avoiding periods when salinity may be expected to exceed this value.