

# Food and Feeding Habit of *Sarotherodon melanotheron*, Rüppell, 1852 (Pisces: Cichlidae) in Sakumo Lagoon, Ghana

P. K. Ofori-Danson\* and Grace N. Kumi

*Department of Oceanography and Fisheries, University of Ghana, P. O. Box LG 99, Legon, Ghana.*

*\*Corresponding author; Email: ofdan@ug.edu.gh*

## Abstract

An investigation was conducted into the food and feeding habits of the blackchin tilapia *Sarotherodon melanotheron* (Rüppell, 1852) in the Sakumo lagoon in the Greater-Accra Region of Ghana. The food items covered a wide range of plankton and other accessory prey items suggesting that the fish is largely planktivorous. There were no clear differences among food items eaten by the juveniles and adults, with the Shannon-Wiener diversity index ( $H'$ ) being 1.1 and 1.2, respectively. This suggests that the diversity of food items exploited by the adults are similar to that of the juveniles, or that they exploited the same microhabitats. However, the juvenile fish had preference for the Cyanophyceae, Chlorophyceae and Rotifera, whilst the adults generally preferred Cladocera, Bacillariophyceae and Cyanophyceae, suggesting age-specific dietary preference. The majority (45.2%) *S. melanotheron* had 3/4 fullness of guts around 1200 GMT and between 1500–1800 GMT (40.5%), suggesting that the fish probably feeds mostly at this time during the day, even though the fish is known to feed largely in the night to avoid predatory birds. The greatest number of empty guts (90%) was observed between 0600–0900 GMT, suggesting that they probably reduce feeding during this period of the day. The ability of *S. melanotheron* to feed at different trophic levels, coupled with the potential for fast growth, makes this species a promising candidate for incorporation into locally-operated polyculture systems with minimal inputs of expensive animal protein in the feed.