**D-57: Feeding pattern and digestibility of food in *Oreochromis mossambicus* in Kotmale reservoir**

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Fish with a mean length of 19.27 cm were considered. These were caught during 5 diurnal samplings carried out in different months of the year. Mean weight of 30 full stomachs was taken as a standard value to determine the

degree of filling during the diurnal cycle. These values were compared with that of gastro-somatic index.

Colour, viability and percentage of pheophytin present in the gut contents were determined. Digested food obtained from different portions of the gut was cultured.

According to the results the feeding hours were 12 noon to 6 a.m. and the peak hours being 6 p.m. to 12 midnight. Feeding rates decreased with sunrise. Values of Gastrosomatic index too correlated with this data.

The colour of the food along the gut passage was from greenish brown to black.

*Staurastrum* sp. mainly *Cosmasium* sp. and also some *Microcystis* in the hind gut were with cytoplasm intact.

However, neither *Staurastrum* nor filamentous algae grew in culture media, *Cosmarium*, along with other small green algae grew. Diatoms were present in plenty but *Microcystis* were in insignificant numbers.

The samples obtained just after sunset showed less of pheophytin which increased with time. At dawn more pheophytin and less chlorophyll were present along the digestive tract.

pH of the stomach was 7 when empty and 1.8 - 2.00 when full. Less pheophytin at sunset indicated less digestion (due to high pH) at the onset of feeding.