Proceedings of the Sixth Annual Sessions : Sri Lanka Association for Fisheries and Aquatic Resources, 29th June 2000, SLAAS Auditorium, Colombo (Abstract)

Changes in feeding habits of *Puntius filamentosus* (Valenciennes) with body size, in Minneriya reservoir, Sri Lanka, during high water level

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Small Cyprinids are known to occur in considerable numbers in irrigation reservoirs in the dry zone of Sri Lanka. They are presently unexploited due to the lack of demand as food fish. Nevertheless these small Cyprinids play a significant role in the trophic dynamics of the reservoir ecosystems. *Puntius filamentosus* (Valenciennes) which is known to be a macrophyte feeder occurs in almost all reservoirs in the dry zone of the country.

***P. filamentosus* was caught from Minneriya reservoir, Sri Lanka using beach seines and small-mesh (12.5, 16, 20, 25, 33 and 37 mm stretched mesh size) monofilament gillnets which were exposed for less than 30 minutes. These fish were caught during the seasons of high water level (from August, 1998 to April 1999) in order to investigate the food habits between the different size classes, during the seasons when their preferred food, ie, macrophytes are available in the peripheral areas of the reservoir. Fish were grouped into five size classes; 0-30 mm, 30-60 mm, 60-90 mm, 90-120 mm and 120-150 mm. The total number of fish observed during this period was 174. Relative gut length (RGL = gut length/total length) of individual fish was determined and a highly significant curvilinear relationship was evident between Relative Gut Length (RGL) and Total Length (TL) ($P < 0.05$)**

The gut contents in the first 1/3rd of the intestine in each size class were pooled. The food items were identified to the nearest taxonomic level and were grouped under seven broad categories. In small size classes (0-60 mm) of *P. filamentosus*, the dominant food items were animal matter (Insect parts and Planktonic Crustaceans). In larger (>60 mm) sized *P. filamentosus*, food items were domonated by macrophytes and phytoplankton. The positive curvilinear relationship between RGL and TL indicates that there appears to be a morophological adaptation in the digestive system of *P. filamentosus*, to its changes in feeding habits with body size. Schoener's index (0.26713) estimated for quantifying dietary overlap of juvenile (<60 mm) and adult (>60 mm) *P. filamentosus*, indicates that three is no strong intra-specific competition for food between young and adult fish. This might enhance recruitment of young fish to the adult stock.

This study was carried out as a part of the project (Project number ; IC18-CT97-0190) funded by European Union INCO-DC programme.