
**Food niche overlap among some common fish species
contributing to the fishery of the
Batalagoda reservoir in the North Western Province of
Sri Lanka**

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Abstract

Recent development of inland fishery includes stocking and introduction of exotic fish species into Sri Lankan reservoirs. Exotic fish species may have negative impacts on indigenous fish species either by predation or competition if food and space are limited. Present study was carried out in Batalagoda reservoir in the North-Western Province of Sri Lanka to determine the degree of food niche overlap among indigenous and exotic fish species contributing to the fishery. Fish samples were obtained from the commercial catch from two fish landing sites from May to December, 2004 representing south-west monsoon, intermonsoon and north-east monsoon periods. The stomach contents of fish in different length groups were analyzed qualitatively and quantitatively. The relative importance of food items was used to determine Bray-Curtis similarity Indices using Primer V software package. The length groups of species were clustered using group average linkage and subjected to Non-Metric Multi Dimensional Scaling. Results of the study indicated that *Oreochromis mossambicus*, *O. niloticus* and *Etroplus suratensis* feed mainly on detritus in all three seasons. Apart from that they also feed on aquatic macrophytes. *Puntius filamentosus* mainly feed on detritus, macrophytes and crustacean eggs. *P. dorsalis* and *P. chola* feed mainly on macrophytes. Food items in the stomach contents did not show significant variation among different length groups of the same species. Food niches of *O. mossambicus* and *O. niloticus* slightly overlap with that of *E. suratensis*. *P. dorsalis* and *P. chola* also have overlapping food niches. It can be concluded that there is no significant temporal or spacial variation among diets of the six fish species studied.