

## ECOMORPHOLOGY AND FEEDING HABITS OF FISH ASSEMBLAGES IN THREE RESERVOIRS OF SRI LANKA.

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Ecomorphological features correlated with dietary habits of fish species have been reported from the habitats with high species diversity such as riverine habitats and coral reef communities. Freshwater fish assemblages in reservoirs, which are drawn from riverine habitats are usually euryphagous so that it is useful to investigate whether there is any correlation between morphology and the feeding habits. Morphological data of 32 fish species in three Sri Lankan reservoirs and their feeding habits were analyzed in the present study. Body proportions depicting relative body width and relative body depth of fishes are closely related to their habits. Principal component analysis (PCA) indicates that the fish species specialized for cruising are characterized by compressed fusiform bodies, forked caudal fins, pointed pectoral fins, lateral eyes, short heads and terminal, supra terminal or sub terminal mouths. These cruisers are either insectivorous, benthivorous or omnivorous. PCA also indicated that laterally compressed, deep-bodied fishes with truncate caudal fins, terminal mouths and lateral eyes exhibit either herbivorous or detritivorous feeding habits. PCA scores of morphological data and food types further indicate that ambush hunters are dorso-ventrally flattened and have longer bodies with rounded caudal and pectoral fins, terminal, supra-terminal or dorsal mouths, slightly dorso-lateral to dorsal eyes. As the exploitation of fish species and predation are dependent on the body shapes of individual fish species, their impact on the trophic status of reservoir ecosystems can be expected to be related to the morphology of fish species. As such, this aspect has to be taken into account when planning any strategy to exploit fish resources in reservoirs, which are hitherto unexploited.