

**D-14: Resource partitioning among fish species of two streams in the South-Western Ichthyological Province of Sri Lanka**

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Extensive modification of freshwater habitats by human intervention in Sri Lanka has affected the freshwater fish population. Therefore, rational management of freshwater fish resource is an urgent need which requires baseline data on fish and their habitats, but such information is scarce. This study is aimed at obtaining information on resource partitioning among fish species inhabiting two tributaries of Kelani river, namely, Wak Oya and Pusali Oya in the South-Western Ichthyological Province.

This study was carried out from March 1992 - March 1994. Selected morphological characters of fish species were examined and the information on their habitats, food and feeding were obtained.

Fish species show habitat preference, mainly determined by the depth of water, flow velocity, nature of canopy and extent of habitat disturbance. Some species show a preference for certain food items while others are opportunistic feeders. There is also a food overlap among fish. Their habitat and food preferences are closely associated with one or more of the morphological characters, namely, body shape, position and modification of mouth, eye, barbels and gill-rakers.

These results show that the co-existence of many species of fish is a cumulative result of partitioning the resources such as habitat and food, which in turn is made possible by their special morphological characters. Co-existence of many fish species reflects the highly structured nature of the fish community that

maintains a very delicate balance. This emphasizes the point that any considerable adverse effect on one fish species can bring detrimental impacts on the whole fish community