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Influence of substrate type on the distribution of fish fauna in "Madola" stream at Hiyarae, Galle district

Distribution of any faunal element in lotic habitats could occur mainly in spatial dimension and trophic and temporal dimension to a lesser extent. Spatial distribution of fish fauna in these habitats is determined by factors such as, food availability, substrate type, predation pressure etc.. Present study was carried out to determine the influence of substrate type on the distribution of fish assemblage in "Madola" stream at Hiyarae. Four sites (i.e. A, B C and D), each of about 20 m, length was selected using the criteria such as nature of the substrate, water level and water flow. Fish were sampled monthly for a period of six months using hand net, gill net, cast net and electro fisher. Fish caught were identified up to species level. Substrate composition of the study sites were noted as follows; site A: rocks and gravel, site B: sand and stones, site C and D: sand and mud. During the study period, 34 fish species belonging to 14 families were identified. Among them 29% was endemic, 65% was indigenous and 6% was exotic. Endemism was highest at site A and lowest at site D. Site B showed highest abundance of fish while it was lowest at site C. In contrast species richness was relatively higher at site C. According to their inter-site distribution *Danio malabaricus*, *Puntius filamentotus* and *Rasbora daniconius* are not substrate specific species while *Puntius titteya*, *Rasbora vaterifloris* and *Schistura notostigma* preferred rock and gravel substrates. *Puntius sarana*, *Awaous grammepomus, Channa striata, Mystus vittatus* and *Mastacembelus armatus* were found mainly in muddy substrate. The results of this study clearly show the importance of different type habitats in stream ecosystems for the survival of fish assemblage.