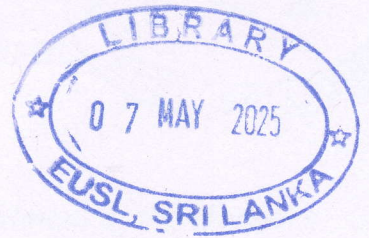


**ANALYSIS OF DIVERSITY INDEX, DOMINANCE AND
COMPOSITION OF BEACH SEINE IN SELECTED
LANDING SITES IN CHENKALADY FI DIVISION**



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ABSTRACT

In the Eastern province of Sri Lanka, about 30% of the beach seine sites are found. Scientific information on the composition of the catch of beach seine in Batticaloa District is not yet available. In the present study, beach seine fisheries in ten landing sites in three sub-fishing areas in Chenkalady FI Division in the Batticaloa fisheries administrative district were investigated during the beach seine fishing season from June 2023 to November 2023. The main objective of the present study was therefore to determine the composition, diversity index, and dominance of beach seine in Kaluvankeni, Punnaikuda, and Savukkadi. Data collection is carried out by following the operation of the beach seine unit with eight days of data collection at each station. The research data were in the form of the type and weight of fish caught and analyzed descriptively. Prior to analysis, each fish was taxonomically identified using a species identification field guide for fishery purposes. In the composition analysis of the beach seine catch, 114 species were identified at Kaluvankeni, with the spotted sardinella, a member of the Clupeidae family, dominating the group. 106 species were found at Punnaikuda, with the Indian anchovy, which is a member of the Engraulidae family, predominating. Moreover, 128 species were found in Savukkadi, with the Indian anchovy, which is a member of the Engraulidae family of fish, dominating the collection. The beach seine net has a high degree of diversity, as indicated by the favorable results of the catch diversity indexes for Kaluvankeni, Punnaikuda, and Savukkadi, which are 2.15, 1.95, and 2.46. On the other hand, high dominance or low tool selectivity are indicated by a species catch dominance index in every beach seine at Kaluvankeni, Punnaikuda, and Savukkadi, namely 0.25, 0.27, and 0.16.

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