

**PRELIMINARY INVESTIGATION OF MANGROVE
SPECIES AND ASSOCIATED ICHTHYO DIVERSITY OF
NASIVANTHIVU PRESTINE ECOSYSTEM.**

By

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ABSTRACT

Present study was carried out in Nasivanthivu which is an island situated in Valaichenai lagoon, Batticaloa district, during February to May 2018. Assessment of Mangrove flora was done by belt transect sampling method. Twenty belt transects were laid perpendicularly to shore and mangrove species were analyzed. Floral species found were identified by citing standard literature and identification keys. Fish species which caught by local fishermen in the mangrove area were collected throughout the study period and identified using standard literature. Nine types of true mangroves and three mangrove associates were recorded in the study site. *Excoecaria agalocha* dominates the vegetation with high relative frequency (21.528), Relative Density (41.293) and Relative Abundance (25.769) followed by *Lumnitzera racemosa* and *Rhizophora apiculata*. Thirty-three fish species were encountered during the study period. Among the fish species juveniles and brooders are found in high level which states that Nasivanthivu mangrove ecosystem serve as a breeding ground and nursery ground for many fishes. Presence of a species *Nuclequula flavaxilla* was recorded only within this mangrove ecosystem which haven't encountered in other lagoons in the region. High consumer preferable fish species such as *Ephinephalus sp.*, *Sillago sp.* were mostly encountered mostly throughout the study period. The study scopes to identify and provide a checklist of the mangrove composition and the associated itchthyo diversity of the study site. This ecosystem has been facing threats due to improper, unplanned development and emerging trend of ecotourism along the study site. Therefore, crucial needs for conservation has aroused to protect this pristine ecosystem

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