

Ecology and the Level of Habitat Degradation of Upparu Mangrove Forest, Kinniya, Sri Lanka.

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Mangroves are productive coastal ecosystems which provide number of ecological and socio economic benefits. The growing demand for the land, resources and the dynamics of climate variability has threatened these environments locally as well as globally. Mangrove pollution by haphazard waste dumping is a serious problem in many countries. Upparu lagoon has been using as a dumping site for several decades and reliable statistics and information are not available on the species composition and resource uses in the area. The study was conducted in 2014 to address this information gap. Transect plots were deployed perpendicular to the shoreline at selected sites to record the mangroves, mangrove associates and their densities. Focus group discussions and semi structured interviews were conducted to understand the prevailing issues in the local community linkages to the mangrove forest. Seventeen true mangroves, seven mangrove associates, nineteen birds, eight molluscs, seven butterflies and five crab species were recorded. According to the socio-economic survey resources were found heavily extracted for timber, construction material and firewood as well as for lagoon fisheries, livestock farming, and the lime industry. Combined effects of resource use and waste dumping had caused detrimental consequences to the community and biota leading to forest degradation mainly in the northern flank of the forest. Several places were found littered with solid cement rubble resulted from house demolition and more than 70% of the trash were plastic and polythene in sampling sites. Currently this valuable ecosystem is degrading due to lacking of proper waste management system. Therefore, attention of relevant authorities is highly needed to adopt site specific management interventions in order to restore and manage this ecosystem sustainably.

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