

CONSERVATION OF BIODIVERSITY IN MANGROVE ECOSYSTEM IN SRI LANKA

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Mangrove ecosystem is one of the most threatened natural systems in Sri Lanka and total extent of mangrove in this country is about 12,500 ha according to recent studies. The biodiversity assessments of mangrove habitats in Sri Lanka have proved that though the extent of mangrove is small, it has greater diversity compared to Asia-pacific region. However, lack of awareness and management as well as poor protection status have paved the way for destruction of this valuable natural system.

The studies shows that there are about 30 mangrove species in Sri Lanka and these species are distributed in many isolated habitats along the inter-tidal regions of coastal zone. A detail study was carried out to assess the mangrove biodiversity of Sri Lanka and the study area was confined to north western, western and southern coastal belt. The results show that the distribution pattern and range and the population size of the each species vary from one to another making conservation of total mangrove biodiversity of Sri Lanka a difficult task. Based on the population size and the distribution range, species could be divided to groups that give a better criterion in selection of mangrove habitats for conservation. Based on distribution range, species could be divided as widely distributed, restricted to ecological regions and restricted to few habitats and based on population size as common, less common and rare.

The analysis of data shows that more than 8 habitats are necessary to conserve total mangrove diversity. However, few species are limited to less than ten individuals even within their habitats making in situ conservation not fully guaranteeing the total conservation of total diversity. In view of this, it is necessary to take immediate actions to conserve mangrove biodiversity of the country in a more scientific and systematic way to ensure the survival of these species.