

SUMMARY

Title	-	The Study of the diversity of some wetlands in the Colombo and greater Colombo area.
Institute	-	University of Colombo
Chief Scientific Investigator	-	Kanthi Abeynayake
Period of Contract	-	15th June, 1994 - 1st June, 1996 (but an extension upto September 1996 was obtained)

The sites selected for the study were Yakbedda marsh, Heen marsh, Bloemendhal marsh, Sri Jayawardhanapura marsh, Pagoda - Kotte marsh and Bellanwila - Attidiya marsh.

The objectives of the study were to determine the floral and faunal composition of the study sites, to demarcate plant communities and associations that are visible in each study site, to determine the characteristics of the habitat and human interferences on these sites and to determine the feasibility of using the data obtained for selection of a marsh for development, if a need arises in the future.

All plant species occurring in the selected study sites (except algae and fungi) were identified. Cover/abundance of herbaceous vegetation was determined using 1m x 1 m quadrats using the Braun - Blanquet scale. Heights of trees were also determined. A preliminary survey on the fauna was also conducted at the above sites. pH, turbidity, conductivity, dissolved oxygen and biochemical oxygen demand were measured for

water while the organic matter content, nitrate, phosphate and potassium contents were determined for soils. The distribution of plant associations and communities in each study site was mapped to scale. People residing along the borders of the study areas were interviewed using a questionnaire to determine the human impacts.

From the floral and faunal data the richest area under study was Bellanwila - Attidiya marsh having 494 species, 1 threatened species, 20 endangered species and 6 endemic species. The major plant communities identified were community in deep open water, community in shallow open water, community in seasonally water logged area (marsh) and community on landfills. In all sites except Bloemendhal marsh all four communities were represented. Several associations were seen in the communities demarcated - the highest number occurring in the seasonally water logged (marsh) community. The human interference was least at the Sri Jayawardhanapura marsh and most at Yakbedda marsh. Landfilling seemed to be the main threat to the reduction in extent of the marsh area.

Cluster analysis using floral, faunal and habitat characteristics revealed that Heen marsh and Sri Jayawardhanapura marsh resemble each other very closely. In the future out of the sites studied, if there is pressure for release of a marshland for development - the choice should be made between either Heen marsh or areas of Sri Jayawardhanapura marsh. Future work should look into hydrological aspects.

Papers read

Biodiversity of two important marshlands in and around Colombo.

SLAAS sessions, November, 1995.