

Early Holocene environmental history found from grass/non grass pollen, micro-charcoal, thermally mature and fungal spore records on the master core segment 3 in the Horton Plains, Central Sri Lanka.

By

Anoja Kalugamage

TH 114

A thesis submitted to the Postgraduate Institute of Archaeology, University of Kelaniya in partial fulfillment of the requirement for the degree of Master of Science

Abstract

Radiocarbon dated multi-proxy (*i.e.* pollen, pteridophyta spores, fungi spores, thermally matures, microcharcoal and plant debris) records in peat and sediment samples on the master core segment 3 in the Horton Plains, Central Sri Lanka resulted the Early Holocene environmental changes. Over 30 types of palynomorphs with their respective frequency distributions are found. Clusiaceae/*Calophyllum* sp., *Syzygium* sp., Aquifoliaceae/*Ilex* spp and Ericaceae/*Rhododendron* sp. were the most common Upper Montane Rain Forest (UMRF) woody species. Grasslands also occur to considerable level. Palynofacies results indicate that Early Holocene climate was humid. Anthropogenic activities, forest clearance and burning regime were identified during the Early Holocene.