

PALYNOLOGICAL DEVELOPMENT OF THE MKHUZE SWAMPS, KWAZULU-NATAL, SOUTH AFRICA

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Palynological studies were carried out on cored late Holocene sediments from the Mkhuze Swamp at the northern shore of Lake St. Lucia located in the Indian Ocean Coastal Belt Biome of KwaZulu-Natal, eastern South Africa. The project is part of TRACES (Tracing Human and Climate Impacts in South Africa, coordinated by MARUM, University of Bremen, Germany). The aim is to reconstruct past environmental changes and infer past climate fluctuations during the late Holocene, as well as human disturbances. The record starts c. 2000 yrs BP with the palynological results showing a dominance of Poaceae (grasses, > 80 %) suggesting a predominance of grassland with some woodland and forest elements. The decline in fungal spores, cryptogams, wetland plants as well as *Podocarpus* (yellowwood tree) and other forest elements, with a corresponding increase in the bushveld tree *Spirostachys* (jumping bean tree/tamboti), between 1200 yrs BP and 450 yrs BP indicates a drop in water table and a change from a shallow lake system surrounded by a humid forested environment to a swamp with drier open savanna vegetation. The peak of microscopic charcoal around 900 yrs BP suggests an increase in wildfires that may have been caused by the drier climate and/or anthropogenic impact (Pre-European human disturbance like shifting cultivation i.e., by Iron Age farmers). The increase in microscopic charcoal, charred cuticles, *Persicaria* pollen, a peak of Amaranthaceae pollen and corresponding decrease in trees and grasses in the last 250 yrs suggest disturbances by the European settlers.