

**STUDY OF THE CHEMICAL PROPERTIES OF SEDIMENTS IN
VARIOUS TYPES OF MANGROVES IN THE PASIR KADILANGU
COAST MANGROVE FOREST, KALURAHAN JANGKARAN,
KAPANEWON TEMON, KULON PROGO DISTRICT**

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ABSTRACT

This research was carried out in the Pasir Kadilangu Beach Mangrove Forest. Mangrove forests, which have varying characteristics and morphology in providing nutrients, are a very important ecosystem. The chemical properties in sediment are important properties for plants. This research aims to determine several chemical properties of sediment in various types of mangroves in the Pasir Kadilangu Beach Mangrove Forest in Jangkaran Village, Kapanewon Temon, Kulon Progo Regency. The method used is a survey method. Sampling used a purposive sampling method based on different types of mangroves, namely *Avicennia* sp, *Rhizophora* sp, *Sonneratia* sp, Nipah mangroves and 1 location without mangroves with 3 replications at each location and continued with analysis in the laboratory. Testing of sediment and litter samples was carried out at the Soil Science Laboratory, Faculty of Agriculture, National Development University "Veteran" Yogyakarta including analysis of pH, Sediment Salinity, C-Organic Sediment, KPK Sediment, N-Total Litter, N-Total Sediment, Litter Production, and Texture Sediment. Direct observations in the field were carried out for data on vegetation density and sediment temperature. Data analysis/data interpretation is carried out in descriptive form. Based on the analysis results, the sediment pH value ranges from 5.99 – 6.60 with moderate to neutral acidity. Sediment salinity values range from 1272 – 6267.67 mS/cm with high to extreme classes. Sediment C-Organic values range from 1.87 – 4.06% with low to high values. The KPK value ranges from 5.62 – 9.65 me% with a low value. The N-Total Litter value ranges from 1.77 – 3.38%. The N-Total Sediment value ranges from 0.05 – 0.07% with a very low value. Vegetation density ranges from 533.33 – 1333.33 ind/Ha with sparse to moderate levels. Litter production value ranges from 0.07 - 14.38 g/m²/28 days. The dominant textures are loam sand, loam and clay loam. The temperature value ranges from 26.16 – 34.33 °C.

Keywords: Mangrove Types, Kadilangu Sand Beach, Sediment, Chemical Properties.