

**KAJIAN SIFAT FISIK TANAH MANGROVE MUARA SUNGAI  
BOGORWONTO DESA JANGKARAN KECAMATAN TEMON  
KABUPATEN KULON PROGO DIY**

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**ABSTRAK**

Muara Sungai Bogorwonto merupakan kawasan pesisir pantai dengan tingkat abrasi yang tinggi karena dipengaruhi oleh aktivitas air sungai dan energi air laut Samudra Hindia di bagian selatan, sedangkan di bagian utara terdapat permukiman warga. Terdapat ekosistem mangrove yang penting di wilayah pesisir untuk mencegah erosi dan abrasi pantai. Penelitian ini bertujuan untuk mengetahui sifat fisik tanah serta mengidentifikasi jenis mangrove yang tumbuh di kawasan muara Sungai Bogorwonto, Desa Jangkaran, Kecamatan Temon, Kabupaten Kulon Progo, Daerah Istimewa Yogyakarta. Metode yang digunakan dalam penelitian ini adalah survey, dengan pengambilan sampel menggunakan zig-zag yang diambil dari kiri dan kanan sungai yang terdiri dari sampel terusik dan tidak terusik, untuk masing-masing titik ada dua lapisan, 0-20 cm dan 20-40 cm. Selanjutnya sampel tanah penelitian dianalisis dilaboratorium Universitas Pembangunan Nasional “Veteran” Yogyakarta dan BPTP Yogyakarta. Parameter yang dianalisis yaitu tekstur, permeabilitas, pH ( $H_2O$  dan KCl), BV, BJ, pengamatan jenis mangrove serta kematangan tanah. Hasil penelitian ini menunjukkan bahwa area penelitian memiliki tekstur pasir, lempung pasiran, pasir lempungan, dan lempung. Permeabilitas sedang, DHL 192-239  $\mu S/cm$ , pH  $H_2O$  6,0-6,6 KCl 5-7, BV 0,84-1,74  $g/cm^3$  dan BJ 1,90-2,90  $g/cm^3$  serta kematangan tanah tergolong matang. Ditemukan 2 jenis mangrove di area penelitian yaitu jenis Mangrove Tancang (*Bruguiera* sp) tumbuh dikawasan jauh dari garis pantai, didominasi tekstur lempung, pH relatif stabil, dan memiliki tingkat salinitas yang rendah. Jenis Api-api (*Avicennia* sp) tumbuh di kawasan dekat dari garis pantai yang didominasi tekstur lempung pasiran, dengan pH rendah-normal, serta memiliki tingkat salinitas tinggi.

**Kata kunci:** Mangrove, Muara Sungai Bogorwonto, Sifat Fisik.

**STUDY OF THE PHYSICAL SOIL OF MANGROVE VEGETATION AT  
BOGOWONTO RIVER JANGKARAN VILLAGE, TEMON DISTRICT,  
KULONRORO DISTRICT, DIY**

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**ABSTRACT**

The estuary of the Bogowonto River is a coastal area with high levels of abrasion because it effect by activity of river flows and energies from Indian Ocean in the south, while in the northern part is a residential area. The existence of ecosystems of mangrove in bogowonto river is important for continuity of the coastal area to decrease and coastal abrasion, so it is necessary to conduct research on the physical character of the mangrove soils of the Bogowonto River Estuary. The aims of this research to determine the physical characteristics of the soil and Identifying mangrove species that grow in the estuary of Bogowonto River Estuary, Jangkaran Village, Temon District, Kulonprogo Regency, Special Region of Yogyakarta. The methodes of this research were survey, zig zag sampling methode start from the left to right for both sample which disturbed or undisturbed, for each point there are two layers, 0-20 cm and 20-40 cm. The parameters analyzed in the texture, permeability, pH ( $H_2O$  and KCl), Bulk Density, Particle Density, observation of mangrove species as well as the maturity of the soil. The results show that the area of research has a sand texture, sandy loam, loamy sand, sandy clay loam and loam. Permeability is medium, various DHL 192-239  $\mu S/cm$ , pH  $H_2O$  6.0-6.6 KCl 5-7, Bulk Density 0.84-1.74 g/cm<sup>3</sup> and Particle Density 1.90-2.90 g/cm<sup>3</sup> as well as the maturity of the soil is classified as ripe. Two kinds of mangroves were found in the research area, namely the Tancang Mangrove Type (*Bruguiera* sp), thrives in areas far from the coastline,with stable pH and have low salinity levels. The Api-api type (*Avicennia* sp), grows in the areas that close to the coastline which are dominated by sandy loam texture, it has a high level of salinity, with low until normal pH and tolerant to high temperatures.

**Keywords:** *Mangrove, Bogowonto River Estuary, Physical Characteristics.*