

SARI

Penelitian sebelumnya terkait variabilitas gambut di Indonesia telah dilakukan pada dua lingkungan pengendapan berbeda, yakni pesisir dan *intermontane*. Taman Nasional Sebangau, Kalimantan Tengah, merupakan kawasan konservasi gambut tropis di topografi datar yang ideal untuk mempelajari variabilitas gambut pada lingkungan pengendapan dataran (*inland*). Penelitian ini bertujuan mengidentifikasi persebaran vertikal dan lateral karakteristik gambut *inland* di daerah tropis sebagai pelengkap studi variabilitas gambut tropis. Sebanyak 14 titik bor ditentukan menggunakan bor tangan MacCaulay. Sampel dideskripsikan berdasarkan klasifikasi tekstural tanah organik Wüst dan dianalisis menggunakan petrografi organik, analisis *proksimat*, *ultimat*, dan integrasi data penginderaan jauh. Ketebalan gambut berkisar antara 1,5–8 meter, dengan nilai *Normalized Difference Vegetation Index (NDVI)* antara 0,174–0,904. Ditemukan tiga jenis gambut: *fibric*, *hemic*, dan *sapric*. Lapisan puncak didominasi *fibric* yang tersusun oleh matriks organik dan maseral *humodetrinite*. Bagian tengah terdiri dari *hemic* dengan dominasi matriks dan jaringan teroksidasi (*oxidized tissue*), mengindikasikan proses oksidasi. Bagian dasar dan tepi didominasi *sapric* yang kaya jaringan kayu dan maseral *textinite*, mencerminkan tingkat dekomposisi yang tinggi. Secara lateral, ketebalan gambut menurun ke arah sungai dengan kadar abu meningkat terhadap kedalaman dan kedekatan tubuh air, mengindikasikan pengaruh sedimen anorganik. Kandungan sulfur yang rendah (<0,1 wt.%) menunjukkan lingkungan pengendapan air tawar tanpa pengaruh laut. Pembentukan gambut Sebangau terjadi melalui proses paludifikasi, dimulai dari genangan akibat air limpasan dan curah hujan yang mendorong akumulasi vegetasi. Endapan dekat sungai membentuk *sapric* berkadar abu tinggi, sedangkan bagian tengah berkembang menjadi kubah dengan *hemic* dan *fibric* yang miskin nutrien dan rendah abu.

Kata Kunci: Taman Nasional Sebangau, Endapan Gambut, *inland*, Variabilitas, pembentukan gambut

ABSTRACT

Previously research on peat variability in Indonesia has been conducted in two different depositional environments: coastal and intermontane. Sebangau National Park, Central Kalimantan, is a tropical peat conservation area situated on a relatively flat topography, making it an ideal site for studying peat variability in inland depositional settings. This study aims to identify the vertical and lateral distribution of inland tropical peat characteristics to complement existing research on tropical peat variability. Fourteen boreholes were drilled using a MacCaulay hand auger. Peat samples were described based on the organic soil texture classification Wüstand analyzed through organic petrography, proximate and ultimate analysis, and remote sensing integration. Peat thickness ranges from 1.5 to 8 meters, with Normalized Difference Vegetation Index (NDVI) values ranging between 0.174 and 0.904. Three peat types were identified: fibric, hemic, and sapric. The upper layer is dominated by fibric peat composed of organic matrix and humodetrinite macerals. The middle layer consists of hemic peat characterized by organic matrix and oxidized tissue, indicating oxidative processes. The lower and marginal parts are dominated by sapric peat, rich in woody tissues and textinite macerals, reflecting a higher degree of decomposition. Laterally, peat thickness decreases toward the river, with ash content increasing with depth and proximity to water bodies, suggesting the influence of inorganic sediment. The very low sulfur content (<0.1 wt.%) confirms a freshwater depositional environment with no marine influence. The formation of peat in Sebangau occurs through paludification, initiated by inundation from river runoff and precipitation that stimulates vegetation accumulation. Peat near the river forms high-ash sapric peat, while progressive accumulation in the central area forms a dome dominated by nutrient-poor, low-ash hemic and fibric peat.

Keywords: *Sebangau National Park, Peat Deposits, Inland, Variability, Peat Formation*