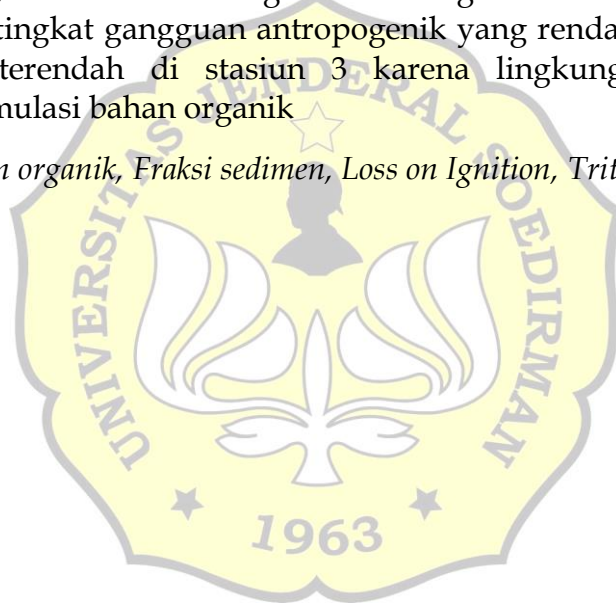


ABSTRAK

Karakteristik fraksi sedimen berperan penting dalam menentukan substrat ekosistem mangrove, terutama karena fraksi halus mampu menyimpan bahan organik yang mendukung produktivitas lingkungan pesisir. Penelitian ini bertujuan untuk menganalisis karakteristik fraksi sedimen dan menganalisis kandungan bahan organik dalam sedimen di kawasan Hutan Payau Tritih Kulon, Kabupaten Cilacap. Metode penelitian dilaksanakan dengan metode *purposive sampling*. Parameter yang diamati meliputi fraksi sedimen dengan metode pengayakan dan pipetasi, serta kandungan *bahan organik* menggunakan metode *Loss on Ignition (LOI)*. Hasil menunjukkan bahwa sedimen di seluruh stasiun umumnya didominasi fraksi debu (*silt*). Kandungan bahan organik sedimen di seluruh stasiun memiliki rata-rata sebesar 16,3%, dengan kecenderungan lebih tinggi pada stasiun yang dekat dengan vegetasi mangrove. Penelitian ini menegaskan bahwa fraksi sedimen yang ditemukan di tiga stasiun yaitu pasir, debu, dan liat. Kandungan bahan organik tertinggi terdapat pada stasiun 1 karena tingkat gangguan antropogenik yang rendah, dan kandungan bahan organik terendah di stasiun 3 karena lingkungan yang kurang mendukung akumulasi bahan organik.

Kata Kunci: *Bahan organik, Fraksi sedimen, Loss on Ignition, Tritih Kulon*



ABSTRACT

The characteristics of sediment fractions play an important role in determining mangrove ecosystem substrates, particularly because fine fractions are able to retain organic matter that supports coastal environmental productivity. This study aims to analyze sediment fraction characteristics and organic matter content in sediments in the Tritih Kulon Brackish Forest area, Cilacap Regency. The research was conducted using a purposive sampling method. Observed parameters included sediment fractions analyzed using sieving and pipette methods, and organic matter content measured using the Loss on Ignition (LOI) method. The results showed that sediments at all stations were generally dominated by the silt fraction. The organic matter content of sediments at all stations had an average of 16.3%, with a tendency to be higher at stations closer to mangrove vegetation. This study confirms that the sediment fractions found at the three stations consisted of sand, silt, and clay. The highest organic matter content was found at Station 1 due to low levels of anthropogenic disturbance, while the lowest organic matter content was observed at Station 3 because environmental conditions were less favorable for the accumulation of organic matter.

Keywords: Organic matter, Loss on Ignition, Sediment fraction, Tritih Kulon

