Konsentrasi Karbon Sedimen Mangrove di Muara Kali Ijo, Kebumen

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Abstract	Mangrove memiliki peran sebagai pendaur unsur hara dan penyerap karbon. Karbon tersimpan pada sedimen mangrove diduga memiliki konsentrasi berbeda pada setiap jenis mangrove dan zonasi mangrove. Penelitian ini bertujuan untuk mengetahui karbon organik pada sedimen mangrove berdasarkan tingkat kerapatan dan jenis mangrove yang berbeda. Penelitian dilakukan di Kawasan Ekosistem Esensial (KEE) Mangrove, Muara kali Ijo, Kebumen. Kegiatan penelitian dilakukan pada Bulan Juni-Juli Tahun 2022. Penelitian dilakukan pada 3 stasiun dengan masing-masing stasiun terdapat 3 plot. Materi yang digunakan dalam penelitian ini adalah sampel karbon organik pada sedimen mangrove serta data kerapatan mangrove yang berada di Muara kali Ijo, Kebumen. Analisis data menggunakan metode kerapatan dan analisis karbon menggunakan metode LOI (loss on ignition). Mangrove di Muara Kali Ijo, Kebumen memiliki kerapatan jarang hingga sangat padat dengan rentang nilai 1,64%-100% dari jenis kerapatan jarang hingga sangat padat 97,92 % dengan kerapatan sebesar 20 ind/ha-1.880 ind/ha. Nilai karbon organik pada sedimen berdasarkan stasiun menunjukkan bahwa karbon organik tertinggi pada stasiun 1 dengan nilai sebesar 1,68 mg/l dan terendah pada stasiun 3 dengan nilai 1,63 mg/l. Hal ini menunjukkan bahwa semakin tinggi kerapatan mangrove maka karbon tersimpan akan semakin tinggi, sehingga mangrove perlu dikelola dengan baik sebagai salah satu sumber karbon organik di perairan.ÃƒÂ‚Ã‚Â Mangroves have a role as a nutrient recycler and carbon sink. Carbon stored in mangrove sediments is suspected to have a different concentration in each type of mangrove and mangrove zonation. This study aims to determine the carbon stored in mangrove sediments based on the density level and different types of mangroves. The research was conducted in the Mangrove Essential Ecosystem Area (KEE), Muara Kali Ijo, Kebumen. This study aims to determine the organic carbon in mangrove sediments based on the density level and different types of mangroves. The research was conducted in the Mangrove Essential Ecosystem Area (KEE), Kali Ijo Estuary, Kebumen. The research was conducted in June-July 2022. The research have 3 and every station have 3 stasiun plots. The material used organic carbon samples from mangrove sediments and mangrove density from Kali Ijo Estuary, Kebumen. Data analysis used the density method and carbon analysis used the LOI (loss on ignition). The mangrove estuary of Kali Ijo, Kebumen has a density of rare to very dense with a value range of 1.64%-100% from rare to very dense density of 97.92% with a density of 20 ind/ha-1,880 ind/ha. The results showed that the density was rare to very dense with a value of 1.64%-100% of the rare to very dense density of 97.92% with a density of 20 ind/ha-1,880 ind/ha. Organic carbon values in sediment based on stations showed that the highest organic carbon was at station 1 with a value of 1.68 mg/l and the lowest was at station 3 with a value of 1.63 mg/l. The value of organic carbon is higher at high mangrove density, so mangroves need to be managed properly as a source of organic carbon in the waters.
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