Analisis Perbandingan Potensi Simpanan Karbon antara Terebralia sulcata (Born, 1778) di Pulau Rambut dengan di Pulau Pari = Comparative Analysis of Carbon Storage Potential between Terebralia sulcata (Born, 1778) on Rambut Island and Pari Island.

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Abstrak

Upaya mitigasi efek gas rumah kaca telah dilakukan dengan berbagai cara dan pendekatan, salah satunya adalah dengan mengetahui kadar karbon pada cangkang dan tubuh gastropoda mangrove serta faktor lingkungan yang memengaruhinya. Penelitian telah dilakukan di Pulau Rambut dan Pulau Pari dengan mengambil sampel gastropoda Terebralia sulcata serta mengukur parameter lingkungan (suhu udara, pH tanah, salinitas air, dan karbon sedimen). Penelitian bertujuan untuk mengetahui perbedaan kadar karbon cangkang dan tubuh T. sulcata di kedua pulau serta pengaruh lingkungan yang menyebabkan perbedaan hasil tersebut. Metode dalam mendapatkan nilai karbon pada tubuh T. sulcata dan sedimen dilakukan dengan pengabuan, sedangkan kadar karbon cangkang T. sulcata dilakukan dengan pengasaman. Hasil penelitian menunjukkan tidak terdapat perbedaan signifikan antara kadar karbon (%C) cangkang di Pulau Rambut (10,08 ± 0,32) dengan Pulau Pari (10,16 ± 0,90). Sebaliknya, terdapat perbedaan signifikan antara kadar karbon (%C) tubuh di Pulau Rambut (33,66 ± 1,86) dengan Pulau Pari (19,88 ± 1,38). Kadar karbon sedimen dapat menjadi pengaruh kadar karbon tubuh T. sulcata dengan nilai korelasi sebesar 0,492 di Pulau Rambut.

.....Mitigation efforts to reduce greenhouse gas effects have been conducted using various approaches, including assessing carbon levels in the shells and bodies of mangrove gastropods, along with the environmental factors that influence them. Research was conducted on Rambut Island and Pari Island, where Terebralia sulcata gastropods were sampled, and environmental parameters (air temperature, soil pH, water salinity, and sediment carbon) were measured. The study aimed to identify differences in carbon levels in T. sulcata shells and bodies between the two islands and determine the environmental factors contributing to these variations. Carbon levels in the gastropod bodies and sediments were measured through combustion, while acidification was used for shell carbon assessment. Results showed no significant difference in shell carbon (%C) between Rambut Island (10.08 ± 0.32) and Pari Island (10.16 ± 0.90). However, a significant difference was observed in body carbon (%C) between Rambut Island (33.66 ± 1.86) and Pari Island (19.88 ± 1.38). The sediment carbon content can influence the carbon content of T. sulcata's body with a correlation value of 0.492 on Pulau Rambut Island.