

ABSTRAK

ASOSIASI GASTROPODA DAN LAMUN DI PERAIRAN PANTAI KETAPANG, DESA BATU MENYAN, KABUPATEN PESAWARAN, LAMPUNG

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Lamun memiliki peranan yang cukup penting secara ekologis. Fungsi ekologis lamun yaitu sebagai sumber makanan, habitat, dan tempat berlindung diri bagi biota lain. Lamun memiliki hubungan dengan gastropoda melalui interaksi yang saling memengaruhi, baik secara langsung maupun tidak langsung. Tujuan penelitian ini untuk menganalisis asosiasi gastropoda dengan komunitas lamun di perairan Pantai Ketapang. Pengamatan lamun dan gastropoda dilakukan di 5 stasiun pengamatan yang terdiri dari 4 stasiun di Pantai Ketapang dan 1 stasiun di Pulau Kelagian. Masing-masing stasiun dibagi menjadi 3 transek garis dengan arah menegak pantai sejauh 50 meter. Pada setiap transek dibagi menjadi 15 plot pengamatan dengan ukuran $1 \times 1 \text{ m}^2$ yang ditempatkan secara acak. Pengamatan lamun dilakukan untuk melihat jenis dan kerapatan. Pengamatan gastropoda dilakukan untuk mendapatkan data jenis dan kelimpahan. Analisis struktur komunitas pada lamun dan gastropoda meliputi indeks keragaman, keseragaman, dan dominansi. Pengukuran parameter kualitas air meliputi, suhu, salinitas, DO, BOT, dan fraksi sedimen. Asosiasi antara gastropoda dan lamun di analisis berdasarkan nilai Indeks Ochiai, kesamaan habitat dihitung dengan Indeks *Bray-Curtis*, serta hubungan antar parameter dianalisis dengan analisis komponen utama. Kerapatan lamun jenis *E. acoroides* tertinggi yaitu $158,53 \text{ ind/m}^2$. Kerapatan lamun jenis *T. hemprichii* tertinggi yaitu $27,15 \text{ ind/m}^2$. Indeks keragaman lamun berkisar antara $0-0,29 \text{ ind/m}^2$. Indeks keseragaman lamun berkisar antara $0-0,42 \text{ ind/m}^2$. Indeks dominansi lamun berkisar antara $0,52-1 \text{ ind/m}^2$. Terdapat 27 spesies gastropoda dengan jenis *P. sulcatus*, *M. labio*, dan *S. urceus* yang paling banyak ditemukan. Kepadatan gastropoda tertinggi yaitu pada jenis *P. sulcatus* dengan nilai $113,85 \text{ ind/m}^2$. Indeks keragaman gastropoda berkisar antara $0,26-0,67 \text{ ind/m}^2$. Indeks keseragaman gastropoda berkisar antara $0,1-0,3 \text{ ind/m}^2$. Indeks dominansi gastropoda berkisar antara $0,03-1,03 \text{ ind/m}^2$. Jenis lamun *T. hemprichii* yang berasosiasi sangat tinggi terdapat pada stasiun 5 dengan jenis gastropoda *Planaxis sulcatus* dan *Hinia reticulata*. Pengaruh jenis gastropoda dan lamun disebabkan oleh kondisi habitat hidupnya.

Kata kunci : Interaksi, asosiasi, gastropoda, lamun, struktur komunitas, *Bray-Curtis*.

ABSTRACT

ASSOCIATION OF GASTROPODS AND SEAGRASS IN KETAPANG BEACH, BATU MENYAN VILLAGE, PESAWARAN, PROVINCE OF LAMPUNG

By

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Seagrass have an important role in the environment. The ecological role of seagrass are as a source of food, habitat, and shelter for other organisms. Seagrass is a community that have a relationship with gastropods. This research aimed to analyzing the association between gastropods and seagrass communities in the waters of Ketapang Beach. The observation of seagrass and gastropod were carried out at 5 stations consist of 4 stations at the coast of Ketapang and 1 station at the Kelagian island. Each station was divided into 3 line transects with a perpendicular directim to the coast as far as 50 meters. Each transect was divided into 15 observation plots with a size of $1 \times 1 \text{ m}^2$ which were placed randomly. The observation of seagrass were carried out to determined the type and density. Gastropods were observed to know the species and abundance. Analysis of community structure on seagrass and gastropod consisted of diversity, uniformity, and dominance index. Measurement of water quality parameters included temperature, salinity, dissolved oxygen, BOT, and sediment fraction. Associations between gastropods and seagrasses was analyzed based on the value of the Ochiai Index. The similarity index was calculated using the *Bray-Curtis* Index, and the relationship between parameters were analyzed using principal component analysis. The result of this research showed that the highest density of *E. acoroides* was 158.53 ind/m^2 , and *T. hemprichii* was 27.15 ind/m^2 . The seagrass diversity index was in the range between $0-0.29 \text{ ind/m}^2$. The uniformity index of seagrass was in the range between from $0-0.42 \text{ ind/m}^2$. The seagrass dominance index was in the range between from $0.52-1 \text{ ind/m}^2$. There were 27 species of gastropods with *P. sulcatus*, *M. labio*, and *S. urceus* dominantly. The highest gastropod density was *P. sulcatus* with 113.85 ind/m^2 . The gastropod diversity index was in the range between from $0.26-0.67 \text{ ind/m}^2$. The gastropod uniformity index was in the range between from $0.1-0.3 \text{ ind/m}^2$. The gastropod dominance index was in the range between from $0.03-1.03 \text{ ind/m}^2$. Seagrass *T. hemprichii*, was highly associated with the gastropods *P. sulcatus* and *H. reticulata* at stations 5. The relationship of gastropods and seagrasses was caused by the habitat conditions.

Keywords: Interaction, association, gastropods, seagrass, community structure, *Bray-Curtis*.