

## RINGKASAN

QOLBUN'AINI. Struktur Komunitas Gastropoda di Ekosistem Lamun Pada Saat Bulan Purnama dan Perbani di Perairan Kota Tanjungpinang. Dibimbing oleh ADITYA HIKMAT NUGRAHA dan JELITA RAHMA HIDAYATI.

Gastropoda adalah salah satu biota laut yang hidup di ekosistem lamun yang keberadaannya dapat dipengaruhi oleh pasang surut yang berkaitan dengan fase bulan. Tujuan penelitian untuk menentukan tutupan ekosistem lamun, menentukan kepadatan gastropoda di ekosistem lamun pada saat bulan purnama dan perbani, serta menentukan hubungan kepadatan gastropoda dengan penutupan lamun di perairan Kota Tanjungpinang. Penelitian ini dilakukan di Kota Tanjungpinang dengan 4 stasiun pengamatan pada bulan Agustus 2023. Pengambilan data penutupan lamun dan gastropoda dilakukan sejalan menggunakan metode transek kuadran 50x50 cm dan penggalian substrat  $\pm 15$  cm untuk infauna. Analisis yang dilakukan meliputi nilai persentase penutupan lamun, kepadatan, keanekaragaman, keseragaman, dan dominansi gastropoda. Analisis data statistik kepadatan gastropoda pada bulan purnama dan perbani menggunakan uji One-Way ANOVA, hubungan penutupan lamun dengan kepadatan gastropoda dianalisis menggunakan analisis regresi linear. Hasil penelitian ditemukan 7 jenis lamun dengan nilai persentase penutupan lamun total tertinggi diperoleh stasiun Tg. Duku sebesar 70,57% dan persentase penutupan jenis lamun tertinggi oleh spesies *Thalassia hemprichii* sebesar 57,8%. Kepadatan gastropoda tertinggi pada saat bulan purnama diperoleh spesies *Rhinoclavis aspera* sebesar 0,88 ind/m<sup>2</sup> sedangkan pada saat bulan perbani oleh spesies *Cerithium coralium* sebesar 0,88 ind/m<sup>2</sup>. Indeks keanekaragaman pada seluruh stasiun tergolong sedang. Indeks keseragaman pada seluruh stasiun pengamatan tergolong tinggi. Indeks dominansi gastropoda rendah pada seluruh stasiun pengamatan. Tidak ditemukan perbedaan signifikan kepadatan gastropoda antara bulan purnama dan perbani. Hubungan penutupan lamun dengan kepadatan gastropoda menunjukkan hubungan yang erat secara negatif atau tidak searah.

Kata kunci: Lamun, Gastropoda, Purnama, Perbani, Tanjungpinang

## SUMMARY

QOLBUN'AINI. Gastropod Community Structure in the Seagrass Ecosystem During the Fullmoon and Neapmoon in the Waters of Tanjungpinang City. Supervised by ADITYA HIKMAT NUGRAHA dan JELITA RAHMA HIDAYATI.

Gastropods are one of the marine biota that live in seagrass ecosystems whose existence can be influenced by tides related to the phases of the moon. The aim of the research is to determine the cover of the seagrass ecosystem, determine the density of gastropods in the seagrass ecosystem during the full and neap moons, and determine the relationship between gastropod density and seagrass cover in the waters of Tanjungpinang City. This research was conducted in Tanjungpinang City with 4 observation stations in August 2023. Data collection on seagrass and gastropod cover was carried out in parallel using the 50x50 cm quadrant transect method and  $\pm 15$  cm substrate excavation for infauna. The analysis carried out included the percentage values of seagrass cover, density, diversity, uniformity and gastropod dominance. Statistical data analysis of gastropod density on the full moon and neap using the One-Way ANOVA test, the relationship between seagrass cover and gastropod density was analyzed using linear regression analysis. The results of the research found 7 types of seagrass with the highest percentage value of total seagrass cover obtained at Tg. Duku station was 70,57% and the highest percentage of seagrass cover was the species *Thalassia hemprichii* at 57,8%. The highest gastropod density during the full moon was obtained by the *Rhinoclavis aspera* species at 0,88 ind/m<sup>2</sup>, while during the neap moon the species *Cerithium corallium* was 0,88 ind/m<sup>2</sup>. The diversity index at all stations is classified as moderate. The uniformity index at all observation stations is relatively high. The gastropod dominance index was low at all observation stations. No significant differences were found in gastropod density between full moon and neap. The relationship between seagrass cover and gastropod density shows a close negative or unidirectional relationship.

Keywords: Seagrass, Gastropods, Full Moon, Neap Moon, Tanjungpinang