

Nandita Farini Sari. NIM 220341100002. Struktur Komunitas Gastropoda Pada Kerapatan Mangrove yang Berbeda. Dibawah Bimbingan **Dr. Apri Arisandi, S.Pi., M.Si.**

ABSTRAK

Ekosistem mangrove merupakan habitat penting bagi kehidupan biota laut terutama gastropoda yang berperan sebagai bioindikator. Penelitian ini bertujuan untuk menganalisis kondisi dari struktur komunitas gastropoda pada kerapatan mangrove yang berbeda, serta hubungan antara kepadatan mangrove dengan kepadatan gastropoda. Penelitian ini menggunakan metode survei dengan teknik *purposive sampling* pada dua stasiun dan titik pengamatan yang mewakili kondisi mangrove yang berbeda. Pengambilan sampel gastropoda dilakukan menggunakan transek 1x1 sedangkan parameter pendukung yang diukur meliputi suhu, salinitas, pH, dan jenis substrat. Analisis data meliputi indeks kepadatan, indeks keanekaragaman (H'), indeks keseragaman (E), indeks dominansi (C), serta analisis hubungan antara kepadatan mangrove dan kepadatan gastropoda menggunakan analisis statistik korelasi. Hasil penelitian, bahwa struktur komunitas gastropoda pada ekosistem mangrove menunjukkan respon yang berbeda berdasarkan mikrohabitat dan tingkat kerapatan mangrove, dimana *infauna* memiliki keanekaragaman rendah dan dominansi tinggi yang mengindikasikan komunitas didominasi oleh beberapa spesies tertentu. *Treefauna* menunjukkan struktur komunitas yang lebih seimbang, sedangkan *Epifauna* mengalami variabilitas antar kerapatan mangrove. Jenis substrat yang mendominasi saat penelitian adalah pasir (*sand*).

Kata kunci: *gastropoda, ekosistem mangrove, struktur komunitas*

Nandita Farini Sari. NIM 220341100002. Response of Gastropod Community Structure in Mangrove Ecosystem Based on Different Densities. Under the Guidance of **Dr. Apri Arisandi, S.Pi.,M.Si.**

ABSTRACT

Mangrove ecosystems are important habitats for marine life, especially gastropods, which act as bioindicators. This study aims to analyze the condition of the gastropod community structure at different mangrove densities, as well as the relationship between mangrove density and gastropod density. This study used a survey method with a purposive sampling technique at two stations and observation points representing different mangrove conditions. Gastropod sampling was carried out using a 1x1 transect, while supporting parameters measured included temperature, salinity, pH, and substrate type. Data analysis included density index, diversity index (H'), evenness index (E), dominance index (C), and analysis of the relationship between mangrove density and gastropod density using statistical correlation analysis. The results showed that the gastropod community structure in the mangrove ecosystem showed varying patterns based on microhabitat and mangrove density levels, where infauna had low diversity and high dominance, indicating the community was dominated by certain species. Treefauna showed a more balanced community structure, while Epifauna showed varying patterns between mangrove densities. The type of substrate that dominated during the research was *sand*.

Keywords: *gastropods, mangrove ecosystem, community structure*