

RINGKASAN

JERMI SEMUEL KOLLE (18380012). Struktur Komunitas Lamun di Desa Landu Kecamatan Rote Barat Daya, Kabupaten Rote Ndao. Dibawah bimbingan ROCKIE R. L. SUPIT, S.Pi., M.Si., dan IMANUEL J. EMOLA, S. Pi., M.Si sebagai pembimbing I dan pembimbing II. Program Studi Manajemen Sumber Daya Perairan. Fakultas Perikanan dan Ilmu Kelautan. Universitas Kristen Artha Wacana.

Perairan Desa Landu memiliki ekosistem lamun yang luas, terutama di wilayah pesisir dangkal. Struktur komunitas merupakan salah satu kajian dalam ekologi yang berfokus pada pemahaman terhadap susunan suatu ekosistem serta keterkaitannya dengan faktor-faktor lingkungan. Penelitian ini bertujuan untuk mengetahui struktur komunitas lamun di perairan tersebut. Penelitian dilaksanakan pada bulan Agustus 2024, menggunakan metode survei dan observasi, serta pengumpulan data melalui metode garis transek dan kuadrat. Ditempatkan 6 garis transek, masing-masing sepanjang 100 meter. Kuadran berukuran 50x50 cm dibagi kedalam 25 grid kecil (10x10 cm) untuk menghitung persentase penutupan lamun. Data yang dikumpulkan mencakup jumlah tegakan lamun, jenis spesies, kepadatan jenis, kepadatan relatif, frekuensi jenis, frekuensi relatif, penutupan relatif, dan indeks nilai penting (INP). Hasil perhitungan menunjukkan lamun yang ditemukan di Desa Landu sebanyak 6 spesies dari 2 famili berbeda yaitu, famili *Hydrocharitaceae* 3 jenis seperti *Enhalus acoroides*, *Thalassia hemprichii*, dan *Halophila ovalis*. 3 jenis dari famili *Cymodoceaceae* seperti *Cymodocea serrulata*, *Cymodocea rotundata*, dan *Halodule uninervis*. Kerapatan jenis dan kereapatan relatif tertinggi yaitu spesies *Cymodocea rotundata* sementara yang terendah yaitu spesies *Thalassia hemprichii* dan *Halodule uninervis*. Frekuensi jenis dan relatif tertinggi yaitu spesies *Cymodocea rotundata* sementara yang terendah yaitu spesies *Halodule uninervis* dan *Halophila ovalis*. Indeks dominansi rendah, penutupan lamun di Desa Landu tergolong rusak dengan kategori kurang kaya atau kurang sehat. Dari keenam jenis lamun yang ditemukan di Desa Landu *Cymodocea rotundata* merupakan spesies yang paling banyak berkontribusi.

Kata kunci: Struktur Komunitas, Kerapatan, Lamun, Persen Penutupan, Desa Landu

SUMMARY

JERMI SEMUEL KOLLE (18380012). Seagrass Community Structure in Landu Village, Southwest Rote Subdistrict, Rote Ndao Regency. Under the guidance of ROCKIE R. L. SUPIT, S.Pi., M.Si., and IMANUEL J. EMOLA, S. Pi., M.Si as supervisor I and supervisor II. Aquatic Resources Management Study Program. Faculty of Fisheries and Marine Science. Artha Wacana Christian University.

The waters of Landu Village have extensive seagrass ecosystems, especially in shallow coastal areas. Community structure is one of the studies in ecology that focuses on understanding the composition of an ecosystem and its relationship with environmental factors. This study aims to determine the structure of seagrass communities in these waters. The research was conducted in August 2024, using survey and observation methods, as well as data collection through transect and quadrat methods. 6 transect lines were placed, each 100 meters long. Quadrants measuring 50x50 cm were divided into 25 small grids (10x10 cm) to calculate the percentage of seagrass cover. Data collected included the number of seagrass stands, species, species density, relative density, species frequency, relative frequency, relative cover, and index of importance (INP). The calculation results show that seagrasses found in Landu Village are 6 species from 2 different families, namely, the Hydrocharitaceae family of 3 species such as *Enhalus acoroides*, *Thalassia hemprichii*, and *Halophila ovalis*. 3 species from the Cymodoceaceae family such as *Cymodocea serrulata*, *Cymodocea rotundata*, and *Halodule uninervis*. The highest species density and relative density were *Cymodocea rotundata* while the lowest were *Thalassia hemprichii* and *Halodule uninervis*. The highest species and relative frequency were *Cymodocea rotundata* while the lowest were *Halodule uninervis* and *Halophila ovalis*. The dominance index is low, the seagrass cover on Landu Island is classified as damaged with the category less rich or less healthy. Of the six seagrass species found in Landu Village *Cymodocea rotundata* is the most contributing species.

Keywords: Community Structure, Density, Seagrass, Percent Cover, Landu Village