

RINGKASAN

YANI SUSANTI RIHI NGEDE (18380028). Struktur Komunitas Makroalga 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.

Desa Landu terletak di Kecamatan Rote Barat Daya, Kabupaten Rote Ndao. Perairan di sekitar Desa Landu memiliki keanekaragaman jenis makroalga, Karena memiliki nilai ekonomis yang penting makroalga dimanfaatkan oleh masyarakat sekitar untuk memenuhi kebutuhan hidup mereka. Namun informasi mengenai kondisi ekologis makroalga di Desa Landu masih sangat terbatas. Struktur komunitas merupakan gambaran mengenai kondisi suatu komunitas pada suatu tempat. Tujuan dari penelitian ini adalah untuk menganalisis struktur komunitas makroalga di Desa Landu. Penelitian menggunakan metode survei dan observasi. Sampel dikumpulkan dengan metode garis transek dan kuadran 1x1 meter pada 6 titik transek sejajar pantai, dengan jarak antara transek 100 meter. Hasil penelitian menunjukkan bahwa komunitas makroalga di Desa Landu terdiri atas 13 spesies dari tiga divisi utama yaitu Chlorophyta (2 spesies), Phaeophyta (6 spesies), dan Rhodophyta (5 spesies). Spesies yang dominan adalah *Acanthophora muscoides* (Rhodophyta) dengan total 234 individu. Spesies yang paling jarang ditemukan adalah *Padina australis* dan *Dictyota dichotoma*. Nilai kepadatan tertinggi dicapai oleh *Acanthophora muscoides* sebesar 3,90 individu/m². Kepadatan terendah adalah *Padina australis* dengan 0,10 individu/m². Komposisi jenis tertinggi dan frekuensi relatif juga didominasi oleh *Acanthophora* spp, menunjukkan dominasi spesies ini dalam struktur komunitas. Nilai indeks keanekaragaman sedang, keseragaman rendah dan dominansi tinggi.

Kata kunci: Struktur komunitas, Makroalga, Dominansi, Intertidal, Desa Landu

SUMMARY

YANI SUSANTI RIHI NGEDE (18380028). Macroalgae 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.

Landu Village is located in Southwest Rote District, Rote Ndao Regency. The waters around Landu Village have a diversity of macroalgae species, because they have important economic value, macroalgae are utilized by the surrounding community to meet their daily needs. However, information on the ecological condition of macroalgae in Landu Village is still very limited. Community structure is a description of the condition of a community in a place. The purpose of this study was to analyze the community structure of macroalgae in Landu Village. The study used survey and observation methods. Samples were collected using the transect line method and 1x1 meter quadrant at 6 transect points parallel to the beach, with a distance of 100 meters between transects. The results showed that the macroalgae community in Landu Village consisted of 13 species from three main divisions, namely Chlorophyta (2 species), Phaeophyta (6 species), and Rhodophyta (5 species). The dominant species was *Acanthophora muscoides* (Rhodophyta) with a total of 234 individuals. The least common species were *Padina australis* and *Dictyota dichotoma*. The highest density value was achieved by *Acanthophora muscoides* at 3.90 individuals/m². The lowest density was *Padina australis* with 0.10 individuals/m². The highest species composition and relative frequency were also dominated by *Acanthophora* spp, indicating the dominance of this species in the community structure. Diversity index values were moderate, uniformity was low and dominance was high.

Keywords: Community structure, Macroalgae, Dominance, Intertidal, Landu Village