

## Intisari

### Struktur Populasi dan Pola Distribusi *Acanthophora* sp. di Pantai Ngrumput Kabupaten Gunungkidul

Makroalga *Acanthophora* sp. merupakan salah satu spesies alga merah yang cukup banyak dijumpai pada zona intertidal di Pantai Ngrumput. Keberadaan *Acanthophora* sp. diperairan memiliki berbagai manfaat ekologi perairan serta dapat digunakan pada bidang industri farmasi. Penelitian ini bertujuan untuk mengetahui dinamika morfometrik, pola distribusi, kelimpahan, biomassa, dan persentase tutupan *Acanthophora* sp. di Pantai Ngrumput serta mengetahui hubungan dari setiap aspek terhadap parameter kualitas air. Metode yang digunakan dalam penelitian ini adalah *line transect* dengan kuadran ukuran 50 cm x 50 cm. Hasil data yang ditemukan diolah menggunakan analisis ANOVA satu arah, perhitungan korelasi person, dan perhitungan indeks morisita. Hasil penelitian selama bulan September-Desember 2023 di Pantai Ngrumput, Kabupaten Gunungkidul menunjukkan bahwa nilai kelimpahan, biomassa dan persentase tutupan setiap bulannya tidak signifikan, sedangkan rata-rata biomassa, kelimpahan dan persentase tutupan pada setiap jarak menunjukkan nilai signifikan. Pertumbuhan dan struktur populasi *Acanthophora* sp. tidak terlepas dari pengaruh kualitas air diperairan, melalui perhitungan korelasi, didapatkan hasil parameter kualitas air fosfat memiliki hubungan korelasi positif kuat terhadap kelimpahan dan persentase tutupan. Parameter suhu dan pH memiliki hubungan yang kuat terhadap biomassa. Pola distribusi *Acanthophora* sp. di Pantai Ngrumput menunjukkan hasil yang mengelompok.

Kata kunci: *Acanthophora* sp., biomassa, kelimpahan, Pantai Ngrumput, persentase tutupan.

### *Abstract*

#### Population Structure and Distribution Pattern of *Acanthophora* sp. at Ngrumput Beach Gunungkidul Regency

Red algae species *Acanthophora* sp. often found in the intertidal zone at Ngrumput Beach. The presence of *Acanthophora* sp. in water has various benefits such as balancing aquatic ecology and can be used in the pharmaceutical industry. This research aims to determine the morphometric dynamics, distribution patterns, abundance, biomass and percentage cover of *Acanthophora* sp. at Ngrumput Beach and knowing the relationship of each aspect to water quality parameters. The method used in this research is line transect with quadrants measuring 50 cm x 50 cm. The data results found were processed using one-way ANOVA analysis, we also calculated the individual correlation and morisita index. The results of research during September-December 2023 at Ngrumput Beach, Gunungkidul Regency showed that the values for abundance, biomass and percentage cover for each month showed not significant, while the average biomass, abundance and percentage cover at each distance showed significant or different values. The growth and population structure of *Acanthophora* sp. cannot be separated from the influence of water quality. Through correlation calculations, it was found that the water quality parameter phosphate has a strong positive correlation with abundance and percentage cover. Temperature and pH parameters have a strong relationship to biomass *Acanthophora* sp. The distribution pattern of *Acanthophora* sp. at Ngrumput Beach showed clustered.

Key words: *Acanthophora* sp., biomass, abundance, Ngrumput Beach, percentage cover.