



Intisari

Indeks Ekologi dan Distribusi Bulu Babi (Echinoidea) di Pantai Ngrumput, Kabupaten Gunungkidul

Bulu Babi merupakan hewan invertebrata yang sering ditemukan di zona intertidal Pantai Selatan Gunungkidul, Yogyakarta. Keberadaan bulu babi di perairan memiliki berbagai manfaat seperti penyeimbang ekologi perairan dan bahan konsumsi. Penelitian ini bertujuan untuk mengetahui dan menganalisis indeks ekologi yang meliputi indeks keanekaragaman, keseragaman, dominansi dan distribusi bulu babi di zona intertidal Pantai Ngrumput, Kabupaten Gunungkidul. Penelitian dilakukan selama dua bulan dari bulan November hingga Desember 2023. Metode yang digunakan dalam penelitian ini adalah metode transek kuadran berukuran 1x1 m. Setiap kuadrat plot dilakukan pengamatan mengenai kelimpahan dan indeks ekologi bulu babi serta pengukuran kualitas air. Analisis data meliputi kelimpahan, indeks keanekaragaman, indeks keseragaman, indeks dominansi, dan indeks morisita. Bulu babi yang ditemukan selama penelitian yaitu *Echinometra oblonga*, *Echinometra mathaei*, *Heterocentrotus trigonarius*, dan *Stomopneustes variolaris*. Namun, juga menemukan *Colobocentrotus atratus* diluar stasiun penelitian. Kelimpahan total bulu babi di zona intertidal Pantai Ngrumput sebesar 74,14 individu/m² dengan nilai indeks keanekaragaman jenis 1,07 tergolong sedang, nilai indeks keseragaman 0,83 tergolong tinggi, dan nilai indeks dominansi 0,23 tergolong rendah. Pola distribusi *Echinometra oblonga* dan *Stomopneustes variolaris* yaitu mengelompok. *Heterocentrotus trigonarius* dan *Echinometra mathaei* yaitu seragam, dan mengelompok. Kelimpahan bulu babi tertinggi terdapat di jarak 30 meter dari bibir pantai. *Echinometra oblonga* merupakan spesies yang sering ditemui di Pantai Ngrumput.

Kata Kunci: Bulu Babi, Indeks Ekologi, Keanekaragaman, Kelimpahan, Pantai Ngrumput



Abstract

Ecological Index and Distribution of Sea Urchins (Echinoidea) at Ngrumput Beach, Gunungkidul Regency

Sea urchins are invertebrates that are often found in the intertidal zone of the South Coast of Gunungkidul, Yogyakarta. The existence of sea urchins in the waters has various benefits such as balancing aquatic ecology and consumption materials. This study aims to determine and analyze ecological index including diversity, uniformity, dominance and distribution of sea urchins in the intertidal zone of Ngrumput Beach, Gunungkidul Regency. The research was conducted for two months from November to December 2023. The method used in this study was the 1x1 m quadrant transect method. Each quadrat plot was observed regarding the abundance and ecological index of sea urchins and water quality measurements. Data analysis included abundance, diversity index, uniformity index, dominance index, and morisita index. Sea urchins found during the study were *Echinometra oblonga*, *Echinometra mathaei*, *Heterocentrotus trigonarius*, and *Stomopneustes variolaris*. however we also found *Colobocentrotus atratus* out of stationary research. The total abundance of sea urchins in the intertidal zone of Ngrumput Beach was 74.14 individuals/ m^2 with a species diversity index value of 1.07 classified as medium, a uniformity index value of 0.83 classified as high, and a dominance index value of 0.23 classified as low. The distribution pattern of *Echinometra oblonga*, and *Stomopneustes variolaris* is clumped. *Heterocentrotus trigonarius* and *Echinometra mathaei* is uniform, and clumped. The highest abundance of sea urchins is found at a distance of 30 meters from the shoreline. *Echinometra oblonga* is a species that is often found in Ngrumput Beach.

Keyword: Sea urchin, Ecological Index, Diversity, Abundance, Ngrumput Beach