

DISTRIBUSI DAN KEMELIMPAHAN SPONS DI DANAU LAUT HAJI BUANG, MARATUA, KALIMANTAN TIMUR

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INTISARI

Danau Laut Haji Buang adalah badan air yang dikelilingi oleh daratan dan memiliki tingkat koneksi dengan laut yang rendah serta berpotensi memiliki biota unik. Penelitian ini bertujuan untuk mempelajari distribusi dan kemelimpahan spons di Danau Laut Haji Buang dan faktor yang membatasinya. Total enam titik sampling ditentukan secara random setelah pengamatan komunitas bentik dengan *Manta Tow*. Sebanyak tiga transek dengan panjang 10 m diletakkan di setiap titik sampling pada kedalaman 1-2 m. Metode *Point Intercept Transect* (PIT) dengan interval 10 cm digunakan pada setiap transek. Terdapat 1800 data pengamatan yang selanjutnya dianalisis untuk mengetahui tutupan spons dan tipe substrat. Pengukuran parameter fisiko-kimia salinitas, DO, suhu, dan pH diukur di setiap titik sampling masing-masing sebanyak tiga ulangan. Hasil penelitian menunjukkan komunitas bentik di Danau Laut Haji Buang didominasi oleh spons dengan tutupan 21-60% yang lebih terdistribusi di substrat keras yaitu batu dan akar mangrove. Tercatat 22 famili yang didominasi oleh *Haliclona* spp. dari Famili Chalinidae dan paling banyak ditemukan di akar mangrove (32,9%). *Haliclona* spp. dari kelompok Famili Chalinidae menjadi genus yang adaptif terhadap perubahan pasang surut air, paparan udara, dan temperatur serta memiliki kisaran toleransi luas dalam menentukan substrat. Placospongiidae adalah famili yang melimpah di substrat batu dan lumpur, menunjukkan adanya seleksi habitat dan pembagian sumber daya ruang (*resource partitioning*). Faktor yang membatasi distribusi dan kemelimpahan spons di Danau Laut Haji Buang adalah tipe substrat.

Kata kunci: distribusi, kemelimpahan, spons, danau laut, Haji Buang

DISTRIBUTION AND ABUNDANCE OF SPONGES IN HAJI BUANG MARINE LAKE, MARATUA, EAST KALIMANTAN

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ABSTRACT

Marine lake is seawater body that surrounded by land with varying level of connection with sea. Haji Buang Marine Lake, Maratua, East Kalimantan has a low connection with sea hence has unique biota. This study aims to investigate the distribution, abundance, and limiting factor of sponge in Haji Buang Marine Lake. A total of six sampling sites were determined randomly after observing the benthic community with Manta Tow. A total of three transects (10 m each) were placed 1 m under the waterline at all the sampling sites. The Point Intercept Transect (PIT) method with 10 cm point interval was used to determine sponge coverage and substrat type. Physicochemical factors such as salinity, DO, temperature, turbidity, and pH were measured at each sampling sites with three replicates. The result of this research showed benthic community in Haji Buang Marine Lake is dominated by sponges with 21-60% coverage that distributed hard substrates such as rock and mangrove root. From 22 families, *Halicona* spp. (Chalinidae) was the majority sponge genus identified which mostly observed in mangrove root (32,9%). *Haliclona* spp. from Chalinidae is identified as genus that is adaptive to current change, low tide exposure, temperature, and high tolerance for a wide choice of substrate. The Placospongiidae is abundant on rock and mud, which indicate habitat selection and resources partitioning. Therefore, the limiting factor for sponge distribution and abundance in Haji Buang Marine Lake is the type of substrate.

Keywords: distribution, abundance, sponge, marine lake, Haji Buang