

ABSTRAK

IDENTIFIKASI JENIS DAN BERAT SAMPAH LAUT (*MARINE DEBRIS*) DI PANTAI ANCOL GEN, PESAWAHAN, TELUK BETUNG SELATAN, KOTA BANDAR LAMPUNG

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Perairan Teluk Lampung memiliki potensi kompleksitas tinggi dengan berbagai pemanfaatan lingkungan di sekitarnya. Aktivitas tersebut menyebabkan peningkatan pencemaran/ buangan yang bersifat organik maupun anorganik. Distribusi sampah laut yang tidak tenggelam ke dasar perairan akan hanyut dan berakhir di sepanjang pantai. Penelitian ini dilaksanakan pada bulan Desember 2021-Juni 2022 dan bertempat di Pantai Ancol Gen, Pesawahan, Teluk Betung Selatan, Bandar Lampung. Penelitian bertujuan untuk mengklasifikasi dan mengidentifikasi jenis-jenis serta berat sampah laut yang paling banyak ditemukan di Pantai Ancol Gen. Pengambilan sampel sampah laut menggunakan metode line transek dengan ukuran transek 2 x 100 m² yang membentang sepanjang pantai. Data oseanografi yang meliputi kecepatan arus dan gelombang laut diukur sebagai tambahan data dalam mengkaji pergerakan sampah dari lautan sampai ke pinggir pantai. Hasil penelitian menunjukkan bahwa jenis sampah laut ukuran makro yang mendominasi di Pantai Ancol Gen adalah sampah plastik sekali pakai, kemudian diikuti oleh sampah plastik daur ulang, tekstil, karet, kertas kaca, kayu, logam, dan sampah B3. Kepadatan jumlah sampah laut paling tinggi berada di musim hujan (Desember 2021-Februari 2022) sebanyak 50.020 pcs/ m² dan berat sampah laut sebanyak 160.525 g/m², sedangkan kepadatan jumlah sampah laut terendah di musim kemarau (Mei-Juni 2022) sebanyak 15.450 pcs/m² dan berat sampah laut sebanyak 53.250 g/m². Akumulasi sampah laut makro yang tersebar di sepanjang Pantai Ancol Gen diduga terbawa oleh arus permukaan laut dan aliran sungai yang berada di sekitar pantai tersebut, serta diperkuat dengan perbedaan jumlah sampah yang didapatkan pada musim hujan dibandingkan dengan musim kemarau menjadikan sampah laut yang banyak mendominasi di pinggiran Pantai Ancol Gen disebabkan oleh kenaikan volume debit perairan sungai di musim hujan.

Kata Kunci: Sampah laut, makro, pola arus, musim hujan, musim kemarau

ABSTRACT

THE IDENTIFICATION OF MARINE DEBRIS TYPE AND WEIGHT AT ANCOL GEN BEACH, PESAWAHAN, TELUK BETUNG SELATAN, BANDAR LAMPUNG

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The waters of Teluk Lampung possess a high level of complexity due to various environmental utilization activities in their vicinity. These activities have resulted in an increase in both organic and inorganic pollution. Marine debris that fails to sink to the seabed is carried by currents and eventually deposits along the coastline. This research was conducted from December 2021 to June 2022 and was situated at Ancol Gen Beach, Pesawahan, South Teluk Betung, Bandar Lampung. The objective of the study was to classify and identify the most frequently encountered types and weight of marine debris at Ancol Gen Beach. Marine debris sampling was performed using the line transect method, with transect measuring $2 \times 100 \text{ m}^2$ extending along the beach. Oceanographic data encompassed current velocity and wave characteristics were as additional parameters to examine the movement of debris from ocean to the beach. The research findings revealed that the predominant type of macro-sized marine debris at Ancol Gen Beach were single-use plastic waste, recyclable plastics, textiles, rubber, paper, glass, wood, metals, and hazardous waste. The highest density of marine debris were observed during the rainy season (December 2021-February 2022) with $50,020 \text{ pcs/ m}^2$ and debris weight density $53,250 \text{ g/ m}^2$. In contrast, the lowest density of marine debris was recorded during the dry season (May-June 2022) with $15,450 \text{ pcs/ m}^2$ and debris weight density of $53,250 \text{ g/ m}^2$. The accumulation of macro-sized marine debris along Ancol Gen Beach was believed to be transported by surface ocean and river inflows on the vicinity of the beach. The disparities in debris quantities between the rainy and dry seasons imply that the predominance of marine debris at the shores of Ancol Gen Beach was influenced by an increase in river water discharge during the rainy season.

Keywords: Marine debris, macro-sized, current patterns, rainy season, dry season