Komunitas Dinoflagellata Bentik Penyebab Ciguatera Fish Poisoning (CFP) pada Substrat Buatan dengan Perlakuan Perbedaan Waktu di Perairan Pulau Pramuka, Kepulauan Seribu = Benthic Dinoflagellates Community as the Cause of Ciguatera Fish Poisoning (CFP) on Artificial Substrates with Time Differences at Pramuka Island Waters, Seribu Island

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Abstrak

Telah dilakukan penelitian mengenai komunitas dinoflagellata bentik penyebab Ciguatera Fish Poisoning (CFP) di perairan Pulau Pramuka, Kepulauan Seribu pada Juli 2023 hingga Juni 2024. Penelitian ini bertujuan untuk menganalisis kelimpahan dan komposisi penyusun komunitas dinoflagellata bentik pada substrat buatan dan menganalisis hubungan antara parameter lingkungan terhadap perlakuan perbedaan waktu. Dinoflagellata bentik dikoleksi dari substrat buatan yang diletakkan di perairan selama 24, 48, dan 72 jam. Proses pencacahan dilakukan menggunakan Sedgewick-rafter Counting Cell dan diamati menggunakan mikroskop cahaya pada perbesaran 100x. Analisis data menggunakan Analisis Komponen Utama (AKU) untuk menentukan faktor lingkungan yang mencirikan setiap perlakuan waktu. Diperoleh tiga genus dinoflagellata bentik, yaitu Prorocentrum, Ostreopsis, dan Sinophysis. Perlakuan 72 jam memiliki kelimpahan dinoflagellata bentik tertinggi sebesar 129,1 sel/cm2 dan genus Prorocentrum menjadi genus paling melimpah sebesar 141,6 sel/cm2. Berdasarkan hasil AKU, perlakuan 24 dan 48 jam dicirikan oleh suhu, salinitas, dan kecepatan arus, sedangkan 72 jam dicirikan oleh DO dan intensitas cahaya.
.....Study on the community of benthic dinoflagellates causing Ciguatera Fish Poisoning (CFP) in the waters of Pramuka Island, Kepulauan Seribu, was conducted from July 2023 until June 2024. The aim of this research was to analyze the abundance and composition of the benthic dinoflagellate community on artificial substrates and to analyze the relationship between environmental parameters and different time treatments. Benthic dinoflagellates were collected from artificial substrates placed in the water for 24, 48, and 72 hours. Counting was performed using a Sedgewick-Rafter Counting Cell and observed using a light microscope at 100x magnification. Data analysis was conducted using Principal Component Analysis (PCA) to determine the environmental factors characterizing each time treatment. Three genera of benthic dinoflagellates were identified: Prorocentrum, Ostreopsis, and Sinophysis. The 72-hour treatment had the highest abundance of benthic dinoflagellates at 129,1 cells/cm², with Prorocentrum being the highest abundant genus at 141,6 cells/cm². According to PCA results, the 24 and 48-hour treatments were characterized by temperature, salinity, and current velocity, whereas the 72-hour treatment was characterized by DO and light intensity.