Kelimpahan zooxanthellae pada karang fungia di Pulau Karang Bongkok, Kepulauan Seribu = The abundance of zooxanthellae in fungia corals on Karang Bongkok Island, Seribu Islands

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Abstrak

Penelitian mengenai kelimpahan zooxanthellae pada karang Fungia telah dilakukan di Pulau Karang Bongkok pada Oktober 2013. Penelitian bertujuan melihat pengaruh kedalaman dan parameter lingkungan di tiap kedalaman terhadap kelimpahan zooxanthellae pada Fungia. Penelitian dilakukan dengan mengambil fragmen karang berukuran 4,5-7,5 cm pada kedalaman 3-15 meter. Zooxanthellae dikeluarkan dari fragmen karang Fungia dengan cara dipanaskan pada suhu hingga 85o C selama sekitar 15 menit. Zooxanthellae kemudian diamati di bawah mikroskop dengan perbesaran 10 x 10. Hasil penghitungan menunjukkan kelimpahan rata- rata zooxanthellae sebesar ± 129.414 sel/cm2 -- 525.403 sel/cm2. Hasil penelitian menunjukkan bahwa kelimpahan zooxanthellae tidak mengalami kecenderungan naik ataupun turun seiring bertambahnya kedalaman. Hasil penelitian juga menunjukkan adanya pengaruh ukuran diameter karang Fungia dengan kelimpahan zooxanthellae. Berdasarkan hasil Analisis Komponen Utama (AKU), kelimpahan zooxanthellae tertinggi terdapat pada kedalaman yang dicirikan oleh parameter lingkungan DO dan salinitas.

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The study abundance of zooxanthellae in Fungia corals was conducted in Karang Bongkok Island, October 2013. This study was aimed to determine the effect of an environmental factor difference at each depth in zooxanthellae's abundance in Fungia. Fragments Fungia with 4,5-7,5 cm length collected at 3-15 meters depth. Zooxanthellae expelled from the Fungia coral fragments by heating at temperatures up to 850C for about 15 minutes. Zooxanthellae were observed under a microscope with 10 x 10 magnification. The result obtained average abundance of zooxanthellae at 129.414 sel/cm2-525.403 sel/cm2. The results of this study indicated that the abundance of zooxanthellae did not experience the increase or decrease tendency with the increasing depth. The results also showed the influence of Fungia coral’s diameter to the abundance of zooxanthellae. Based on Parameter Component Analysis (PCA), the high number of zooxanthellae were found at depths which characterized by DO and salinity.