Distribusi vertikal bakteri dan kaitannya dengan konsentrasi klorofil-a di perairan Kalimantan Timur

Ruyitno Nuchsin, author

Abstrak

Telah dilakukan penelitian distribusi vertikal bakteri dan kaitannya dengan klorofil-a di perairan Kalimantan Timur pada bulan Agustus - September 1999. Tujuan penelitian adalah mengamati kaitan bakteri dengan klorofil -a. Analisa bakteri menggunakan metoda Acridine Orange- Epifluorescence Microscopy sedangkan analisa klorofil-a menggunakan metode fluorometrik.

Hasil kajian menunjukkan bahwa pada lokasi yang populasi bakterinya tinggi cenderung diikuti dengan tingginya kandungan klorofil-a. Di lokasi yang populasi bakterinya tinggi, konsentrasi klorofil-a nya juga tinggil. Populasi bakteri dan konsentrasi klorofil-a yang tinggi diperoleh pada lapisan kedalaman 25 m, berkisar antara (4 hingga 90) x 106 sel per ml untuk populasi bakteri dan berkisar antara (0,2 hingga 1,14) mg per m3 untuk konsentrasi klorofil-a. Kesimpulan hasil pengamatan, distribusi vertikal populasi bakteri ada kaitannya dengan konsentrasi klorofil-a.

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Vertical distribution of bacteria population in relation to chlorophyll-a in East Kalimantan waters. Study on distribution of bacteria population and its relation to concentration of chlorophyll-a has been conducted in August - September 1999 in East Kalimantan waters. The purpose of the study was to observe the correlation between population of bacteria and concentration of chlorophyll-a in water column. Acridine Orange Epifluorescence Microscopy method was used to analyze bacteria population, while fluorometric method was used to determine chlorophyll-a concentration.

The result of the study showed that bacteria population was positively correlated to chlorophyll-a concentration, area with high bacteria population has high concentration of chlorophyll-a. The high bacteria population was found in the water columnh of the 25 m deep,as well as for chlorophyll-a concentration, ranged between (4 and 90) x 106 cell per ml and (0.2 and 1.14) mg per m3 respectively. It was concluded that vertical distribution of bacteria population was closely correlated to the concentration of chlorophyll-a.