

ABSTRAK

Klorofil dalam fitoplankton diketahui berperan penting sebagai penghasil oksigen, sehingga konsentrasi oksigen terlarut di perairan Cilacap di pengaruhi oleh konsentrasi klorofil. Tujuan dari penelitian ini adalah menganalisis konsentrasi klorofil, konsentrasi oksigen terlarut dan hubungan keduanya. Metode survei ini mengukur konsentrasi klorofil dengan metode spektrofotometri dan pengukuran konsentrasi oksigen terlarut secara langsung menggunakan DO meter. Di perairan Cilacap konsentrasi klorofil, dengan tertinggi 30,94 $\mu\text{g/l}$ dan terendah 0,018 $\mu\text{g/l}$. Di perairan Cilacap konsentrasi oksigen terlarut tertinggi 5,71 mg/l, dan yang terendah 3,92 mg/l. Hubungan konsentrasi klorofil terhadap oksigen terlarut berdasarkan lokasi adalah lemah untuk perairan Cilacap bagian barat dan hubungan yang kuat untuk perairan Cilacap bagian tengah dan timur. Hubungan konsentrasi klorofil terhadap konsentrasi oksigen terlarut berdasarkan jarak diperoleh hubungan yang lemah pada jarak 2 mil dari pantai dan cukup kuat pada jarak 1 dan 3 mil dari pantai. Kesuburan perairan berdasarkan lokasi diperoleh kesuburan rendah pada bagian barat dan tinggi pada bagian tengah dan timur.

Kata kunci : Klorofil, oksigen terlarut, fitoplankton, klorofil- α



ABSTRACT

Chlorophyll within phytoplankton is known to be important as an oxygen producer. Based on those, dissolved oxygen concentration is influenced by chlorophyll concentration. The purpose of this study is to analyse the chlorophyll concentration, dissolved oxygen concentration and their relation in Cilacap waters. This survey method was used to calculate chlorophyll concentration by spectrophotometric method and measurement of dissolved oxygen concentration is carried out directly using DO meter. Chlorophyll concentration in Cilacap waters was obtained very of value. The highest chlorophyll concentration was found 30.94 $\mu\text{g} / \text{l}$ and the lowest 0.018 $\mu\text{g} / \text{l}$. The highest dissolved oxygen concentration was obtained 5.71 mg / l , and the lowest 3.92 mg / l . The relation of chlorophyll concentration to dissolved oxygen was weak for the Western of Cilacap waters and a strong for the middle and East. The relation of chlorophyll concentration to dissolved oxygen concentration at 2 miles of distance from the coast was obtained weak, strong at 1 and 3 miles of distances from the coast. Waters fertility based on the location was found low fertility in the West and high in the middle and East of Cilacap waters.

Keywords: Chlorophyll, dissolved oxygen, phytoplankton, chlorophyll- α

