

ABSTRAK

Plankton merupakan organisme akuatik yang berperan penting dalam menjaga keseimbangan ekosistem perairan, plankton terdiri dari fitoplankton dan zooplankton. Pertumbuhan dan keberadaan plankton dipengaruhi oleh beberapa faktor fisika, kimia, biologi (kesuburan perairan), antara lain; intensitas cahaya, oksigen terlarut, suhu, salinitas dan ketersediaan unsur hara. Tujuan penelitian ini untuk mengetahui bagaimana kesesuaian perairan Munjung Agung, Kabupaten Tegal terhadap kelimpahan plankton. Metode yang digunakan dalam penelitian ini adalah metode survey, penentuan titik lokasi pengambilan sampel menggunakan teknik *purposive sampling*. Pengambilan data dilaksanakan pada bulan September, Oktober dan Desember 2021, dan stasiun yang digunakan berupa; depan muara, dermaga, dan dekat terumbu karang jeruk. Hasil penelitian diperoleh 18 jenis fitoplankton dan 5 jenis zooplankton. Nilai kelimpahan Fitoplankton diperoleh 1695 ± 20 ind/l, sementara nilai kelimpahan Zooplankton diperoleh 59 ± 2 ind/l. Untuk parameter kualitas perairan diperoleh rentang suhu 29.39 ± 1.03 °C, salinitas 25.71 ± 1.25 ppt, pH 7.88 ± 0.31 , konsentrasi nitrat 2.19 ± 1.08 mg/l, nitrit 0.23 ± 0.14 mg/l, amonia 0.29 ± 0.09 mg/l, dan fosfat 0.19 ± 0.04 mg/l. Hasil analisis menunjukkan kualitas perairan di Perairan Munjung Agung tidak memenuhi ambang batas baku mutu sesuai PP No 22 Tahun 2021 tentang Lingkungan Hidup Baku Mutu Air.

Kata Kunci: Munjung Agung, Fitoplankton, Zooplankton, Parameter Perairan.

ABSTRACT

Plankton is an aquatic organism that plays an important role in maintaining the balance of aquatic ecosystems, plankton consists of phytoplankton and zooplankton. The growth and existence of plankton is influenced by several physical, chemical, biological factors (water fertility), including; light intensity, dissolved oxygen, temperature, salinity and nutrient availability. The purpose of this study was to determine how the suitability of Munjung Agung waters, Tegal Regency to the abundance of plankton. The method used in this study was a survey method and the method of determining the sampling location point using *purposive sampling* technique. Data collection was carried out in September, October, and December 2021. The stations were; the river, the estuary, and near the jeruk coral reef. The results of the study obtained 18 species of phytoplankton and 5 species of zooplankton. Phytoplankton abundance values obtained was 1695 ± 20 ind/l, while zooplankton abundance values obtained was 59 ± 2 ind/l. The results of the water quality suitability analysis showed that the concentration range of temperature 29.39 ± 1.03 °C, salinity 25.71 ± 1.25 ppt, pH 7.88 ± 0.31 , nitrate was 2.19 ± 1.08 mg/l, nitrite was 0.23 ± 0.14 mg/l, ammonia was 0.29 ± 0.09 mg/l, and phosphate was 0.19 ± 0.04 mg/l, The analysis results show that the water quality in the Munjung Agung Waters does not meet the quality standard threshold according to Government Law No. 22 of year 2021 concerning the Environment Water Quality Standards.

Key word: *Munjung Agung, Phytoplankton, Zooplankton, Aquatic Parameters.*