

ABSTRAK

STRUKTUR KOMUNITAS MAKROZOOBENTOS DI PERAIRAN PANTAI DESA MERAK BELANTUNG, KECAMATAN KALIANDA, KABUPATEN LAMPUNG SELATAN, LAMPUNG

Oleh

RINA AGUSTINA

Perairan pantai di Desa Merak Belantung merupakan kawasan yang memiliki aktivitas manusia di sekitar pantai seperti pemukiman penduduk, kawasan wisata pantai, pertanian, *hatchery*, industri ikan asin dan aktivitas lainnya yang secara langsung memengaruhi kualitas perairan. Makrozoobentos sebagai organisme yang hidup di dasar perairan dapat digunakan sebagai bioindikator perubahan kualitas perairan. Perubahan kualitas perairan berdampak terhadap keberadaan makrozoobentos dan struktur komunitas makrozoobentos di perairan pantai Desa Merak Belantung. Penelitian ini bertujuan untuk menganalisis struktur komunitas makrozoobentos serta hubungannya terhadap kualitas air di perairan pantai Desa Merak Belantung, Kecamatan Kalianda, Kabupaten Lampung Selatan, Lampung. Penelitian dilaksanakan selama 3 bulan pada bulan Mei-Agustus 2022 yang dibagi menjadi 4 stasiun yaitu : Pantai Bagus, Pantai Tanjung Beo, Pantai Grand Elty, dan Pantai Merak Belantung. Metode yang digunakan *principal component analysis* (PCA) dan *abundance and biomass comparison* (kurva ABC) dengan parameter fisika dan kimia yang diukur di antaranya : kedalaman, kecerahan, kecepatan arus dan suhu, salinitas, pH, oksigen terlarut (DO) dan bahan organik total (BOT). Berdasarkan hasil yang diperoleh, maka diketahui bahwa jenis makrozoobentos yang mendominasi pada keempat stasiun penelitian yaitu kelas gastropoda dengan 34 spesies dengan nilai kelimpahan di antaranya *Nassarius sp* sebesar 1.439,7 ind/m³ dan *Acanthinucella spirata* sebesar 1.234,7 ind/m³. Analisis kurva ABC menunjukkan bahwa pada stasiun 1 dan 3 status kualitas air buruk, sedangkan pada stasiun 2 dan 4 status kualitas air sedang.

Kata kunci: Makrozoobentos, kualitas air, *principal component analysis* (PCA), *abundance and biomass comparison* (kurva ABC).

ABSTRACT

The Macrozoobenthic Community Structure in Merak Belantung Coastal Waters, Kalianda Sub-district, South Lampung District, Lampung

By

RINA AGUSTINA

The coastal waters in Merak Belantung Village are areas that have anthropogenic activities around the coast due to inhabitation, beach tourism, agriculture, hatchery, fish-salting industry, etc. that directly affect water quality. Macrozoobenthos as organisms that live on water base and can be used as bioindicators of changes in water quality. Water quality changes will impact on the macrozoobenthic availability and their community structure around Merak Belantung Village coastal waters. This study aimed to analyze the macrozoobenthic community structure and its correlation with the water quality in Merak Belantung Village coastal waters, Kalianda Sub-district, South Lampung District, Lampung. This study was performed for three months on May-August, 2022 and divided into four stations, namely: Bagus Beach, Tanjung Beo Beach, Grand Elty Beach, and Merak Belantung Beach. The principal component analysis (PCA) and abundance and biomass comparison (ABC curve) methods were applied in this study with several physical and chemical measured parameters, such as depth, light intensity, current speed, temperature, salinity, pH, dissolved oxygen (DO), and total organic matters (TOM). Based on the results, macrozoobenthic species found in Merak Belantung Village coastal waters were composed of five types, namely gastropods, bivalves, polychaeta, malacostracans, and pelecypods. The most dominant type in four observational stations was gastropods with 34 species with abundance value, such as *Nassarius* sp at 1.439,7 ind/m³ and *Acanthinucella spirata* at 1.234,7 ind/m³. Abundance and biomass comparison (ABC curve) shows the poor water quality status in station 1 and 3. In station 2 and 4 has an intermediate water quality status.

Keywords: Macrozoobenthos, water quality, *principal component analysis* (PCA), *abundance and biomass comparison* (ABC).