

KEMELIMPAHAN MAKROBENTOS DI PANTAI GUNUNGKIDUL, YOGYAKARTA

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INTISARI

Penelitian ini tentang kemelimpahan komunitas makrobentos di zona intertidal pantai Gunungkidul (GK), yaitu Pantai Drini, Krakal, dan Sadranan. Ekosistem pantai GK habitatnya berupa *dead reef-flat with algae*, berbatasan langsung dengan Samudera Hindia. *Landscape* GK berupa lahan pertanian dengan pemupukan tinggi. Kawasan karst memiliki porositas tinggi sehingga limbah pertanian mengalir ke sungai bawah tanah sangat tinggi dan muncul sebagai *seepage* di pantai. Ganggang yang bernilai ekonomi dipanen secara teratur, dan injakan kaki pe-ngunjung yang banyak datang berwisata. Penelitian dilakukan saat surut maksimum tanggal 14-16 Rajab 1443 H. Data dicuplik dengan metode kuadrat plot 1x1 m² dengan ulangan 10 kali di 3 zona intertidal. Sampel dihitung cacah fungsional grup, cacah spesies, cacah individu, serta penutupan pada ganggang, lamun dan karang terumbu. Parameter yang diukur: nitrat, fosfat, suhu udara, suhu dan pH air, salinitas, turbiditas, dan intensitas cahaya. Hasil penelitian menemukan 3 *functional group* (FG) ganggang; 1 spesies lamun; 3 FG Makrozoobentos; 5 FG karang terumbu dan aso-siasinya; serta 3 FG ikan karang penyusun komunitas *tide pool*. Komunitas gang-gang ditemukan 57 spesies, karang terumbu 25 spesies, dan makrozoobenthos 62 spesies. Komunitas ganggang melimpah karena adanya input nutrisi tinggi dari limbah pertanian dan wisatawan. Komunitas makrozoobentos, karang terumbu dan asosiasinya, serta ikan karang kemelimpahannya sedikit karena aktivitas wisatawan. Komunitas makrobentos merespon terhadap faktor fisik kimia pada ekosistem pantai karst GK.

Kata kunci: Karst, ganggang, lamun, makrozoobentos, karang terumbu, nutrisi

THE ABUNDANCE OF MACROBENTHOS IN GUNUNGKIDUL COASTAL, YOGYAKARTA

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ABSTRACT

This research investigates the abundance of macrobenthos community in the intertidal zone of Gunungkidul (GK) coast, in Drini, Krakal, and Sadranan Beach. The GK coastal ecosystem is a dead reef flat with algae habitat, directly adjacent to the Indian Ocean. GK's landscape is agricultural land with high fertilization. In fact, karst areas have high porosity so that nutrient inputs flow into groundwater rivers and appear as seepage on the beach. Economically valuable seaweed is harvested regularly, and many trampling activities of visitors in the beach. The study was conducted during maximum low tide on 14-16 Rajab 1443 H. Data were collected using the 1x1 m² quadrat plot method with 10 replications in 3 intertidal zones. Samples counted number of functional groups, number of species, and number of individuals. Parameters measured: nitrate, phosphate, air and water temperature, pH of water, salinity, turbidity, and light intensity. The results found 3 functional groups (FG) of macroalgae; 1 species of seagrass; 3 FG of macrozoobenthos; 5 FG of reef corals and their associations; and 5 FG of reef fishes. The macroalgae and seagrass community found 58 species, reef corals 25 species, and macrozoobenthos 62 species. The macroalgae and seagrass communities were abundant due to high nutrient input from agricultural waste and tourists. The macrozoobenthos community, reef corals and their associations, and reef fish were less abundant due to tourist activities. Macrobenthos communities respond to physical and chemical factors in the GK karst coastal ecosystem.

Keyword: Karst, macroalgae, seagrass, macrozoobenthos, reef coral, nutrient.