Distribusi Sampah Plastik Pada Ekosistem Lamun Di Perairan Pantai Kastela Dan Taman Nukila Kota Ternate

Distribution Of Plastic Waste On Seaweed Ecosystems In Kastela Coastal Waters And Nukila Park Ternate City

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ABSTRAK

Sampah plastik adalah sampah anorganik yang tidak dapat didegradasi. Sampah plastik merupakan sampah yang paling banyak ditemukan di pinggir pantai maupun di laut lepas dikarenakan plastic digunakan secara luas oleh masyarakat. Pembuangan sampah anorganik ke laut menimbulkan dampak terhadap tumbuhan lamun seperti mengakibatkan tertutupnya lamun oleh sampah yang akan mengurangi intensitas cahaya yang diterima lamun untuk berfotosintesis. Penelitian ini bertujuan untuk mendeskripsikan krakteristik sampah plastik, menganalisis ekosistem lamun, dan menganalisis hubungan antara distribusi sampah plastic dengan kondisi ekosistem lamun diperairan pantai Kota Ternate. Penelitian ini dilaksanakan pada bulan Oktober 2020, dan bulan Februari 2021. Data yang dikumpulkan meliputi data primer. Data primer dilakukan dengan pengambilan sampel di perairan pantai Kastela dan taman Nukila, dan analisis sampel di Laboratorium Hidro-Oseanografi Fakultas Perikanan dan Kelautan, Universitas Khairun Ternate. Data primer meliputi Panjang sampah plastik, berat sampah plastik, kerapatan lamun, dan krakteristik sampah plastik. Metode yang digunakan yaitu Metode Transek Garis Kuadran dengan kuadran 1 m x 1 m. Lokasi pengamatan antara Pantai Kastela dan Taman Nukila di bagi menjadi tiga sub pengamatan dengan ditandai dengan Transek I, II dan III. Garis transek di tarik sejajar garis pantai secara vertikal di daerah ekosistem lamun. Sampel yang diperoleh kemudian dibersihkan, diukur Panjang sampah plastik, berat sampah plastik dan di timbang berat sampah plastic menggunakan timbangan digital. Analisis data yang digunakan yaitu rumus kepadatan sampah dan kerapatan lamun. Karakteristik sampah yang ditemukan pada pantai Kastela dan Taman Nukila, merupakan jenis sampah anorganik yang terdiri atas sampah plastik botol, kemasan, kantong kresek, dan jenis lain. Total kepadatan sampah di pantai Kastela sebesar 13,4 items/m^2 dan taman nukila 22 items/m^2. Jenis lamun yang di temukan pada Stasiun I yaitu *Cymodocea srrulata, Cymodocea rotundata, Halodule pinofolia, Enhalus acoroides, Sryngodium isoetifolium, Thalasea hemprichii, Halodule spinulosa.* Dan pada stasiun II lamun yang di temukan yaitu *Enhalus acoroides, Thalasea hemprichii.* Disarankan perlu adanya penelitian lanjutan untuk memperdalam kajian tentang bahayanya sampah plastic pada ekosistem lamun di lokasi yang lainnya.

Kata kunci: Sampah plastik, ekositem lamun, kepadatan sampah

ABSTRAK

Plastic waste is inorganic waste that cannot be degraded. Plastic waste is the most common waste found on the beach and on the high seas because plastic is widely used by the community. Disposal of inorganic waste into the sea has an impact on seagrass plants such as causing seagrass to be covered by garbage which will reduce the intensity of light received by seagrass for photosynthesis. This study aims to describe the characteristics of plastic waste, analyze the seagrass ecosystem, and analyze the relationship between the distribution of plastic waste and the condition of the seagrass ecosystem in the coastal waters of Ternate City. This research was conducted in October 2020, and in February 2021. The data collected included primary data. Primary data were collected by sampling in the coastal waters of Kastela and Nukila Park, and sample analysis at the Hydro-Oceanography Laboratory of the Faculty of Fisheries and Marine Affairs, Khairun University, Ternate. Primary data includes length of plastic waste, weight of plastic waste, density of seagrass, and characteristics of plastic waste. The method used is the Quadrant Line Transect Method with a quadrant of 1 m x 1 m. The observation location between Kastela Beach and Nukila Park was divided into three sub-observations marked with Transects I, II and III. The transect line is drawn vertically parallel to the shoreline in the seagrass ecosystem area. The samples obtained were then cleaned, measured the length of the plastic waste, the weight of the plastic waste and weighed the weight of the plastic waste using a digital scale. Analysis of the data used is the formula for density of waste and density of seagrass. Characteristics of the waste found on Kastela beach and Nukila Park, is a type of inorganic waste consisting of plastic bottles, packaging, plastic bags, and other types. The total density of waste at Kastela beach is 13.4 items/m2 and Nukila Park is 22 items/m2. The types of seagrass found at Station I were Cymodocea srrulata, Cymodocea rotundata, Halodule pinofolia, Enhalus acoroides, Sryngodium isoetifolium, Thalasea hemprichii, Halodule spinulosa. And at station II the seagrasses found were Enhalus acoroides, Thalasea hemprichii. It is recommended that further research is needed to deepen studies on the dangers of plastic waste in seagrass ecosystems in other locations.

Keywords*: Plastic waste, seagrass ecosystem, solid waste.*