

ABSTRAK

ROSA ROSDIANA N. ALI. NPM 05181711049. **Distribusi Sampah Laut Di Kawasan Hutan Mangrove Desa Bobanehena dan Guaemaadu Kabupaten Halmahera Barat.** Dibimbing oleh Dr. Najamuddin, S.T, M.Si dan Dr. Abdurrachman Baksir, S.Pi, M.Si

Potensi efek sampah laut secara kimia cenderung meningkat seiring menurunnya ukuran partikel plastik (mikroplastik), sedangkan efek secara fisik meningkat seiring meningkatnya ukuran makrodebris. Makrodebris memberikan dampak secara fisika seperti menutup permukaan sedimen dan mencegah pertumbuhan benih mangrove. Potensi sampah menjadi masalah utama pencemaran pesisir, namun sedikit informasi kuantitatif mengenai pencemaran sampah laut di ekosistem mangrove. Selain itu, permasalahan sampah laut belum menjadi perhatian dalam menentukan strategi pengelolaan ekosistem. Distribusi sampah laut di ekosistem mangrove merupakan informasi kuantitatif dalam menentukan strategi pengelolaan ekosistem mangrove dari pencemaran sampah. Tujuan dari penelitian ini yaitu untuk mengetahui karakteristik sampah laut, menganalisis kepadatan sampah laut dan kerapatan mangrove dan menganalisis pengaruh kepadatan sampah laut dengan kerapatan mangrove di kawasan hutan mangrove Desa Bobanehena dan Guaemaadu. Dari hasil penelitian diperoleh Kepadatan sampah laut di lokasi penelitian pada stasiun 1 berkisar antara 0 - 0.0500 item/m² (5000 item/km²), stasiun 2 berkisar antara 0 - 0.2033 item/m² (20330 item/km²) dan stasiun 3 berkisar antara 0,0017 – 0.1283 Item/m² (12830 item/km²). Kepadatan jenis sampah laut yang paling tinggi pada ketiga stasiun pengamatan adalah jenis sampah plastik. Sedangkan kerapatan mangrove di stasiun 1 menunjukkan spesies *Aigiceras Floridum* dengan nilai kerapatan 0.0383 ind/m² (3833 ind/km²), *Soneratia Alba* dengan nilai 0.0150 ind/m² (1500 ind/km²). Sedangkani spesies *Rhizopora Apiculata* dengan nilai 0.1100 ind/m² (11000 ind/km²). stasiun 2 menunjukkan spesies *Soneratia Alba* memiliki nilai kerapatan 0.0933 ind/m²(9333 ind/km²) dan jenis *Rhizopora Apiculata* 0.0100 ind/m² (1000 ind/km²). stasiun 3 menunjukkan bahwa spesies *Soneratia Alba* memiliki nilai kerapatan 0.0700 ind/m² (7000 ind/km²). Hasil Regresi hubungan antara kerapatan mangrove dan kepadatan sampah pada 3 stasiun adalah positif.

Kata kunci : Sampah laut, hutan mangrove, Desa Bobonehena dan Gueamaadu.

ABSTRACT

ROSA ROSDIANA N. ALI. NPM 05181711049. **Distribution of Marine Waste in the Mangrove Forest Area of Bobanehena and Guaemaadu Villages, West Halmahera Regency.** Supervised by Dr. Najamuddin, S.T, M.Si and Dr. Abdurrachman Baksir, S.Pi, M.Sc

*The potential chemical effects of marine debris tend to increase as the size of plastic particles (microplastics) decreases, while the physical effects increase as the size of macrodebris increases. Macrodebrists have physical impacts such as covering the sediment surface and preventing the growth of mangrove seeds. The potential for waste to be the main problem of coastal pollution, however there is little quantitative information regarding marine waste pollution in mangrove ecosystems. Apart from that, the problem of marine debris has not been a concern in determining ecosystem management strategies. The distribution of marine waste in the mangrove ecosystem is quantitative information in determining mangrove ecosystem management strategies from waste pollution. The aim of this research is to determine the characteristics of marine debris, analyze marine debris density and mangrove density and analyze the effect of marine debris density on mangrove density in the mangrove forest areas of Bobanehena and Guaemaadu Villages. From the research results, it was found that the density of marine debris at the research location at station 1 ranged between 0 - 0.0500 items/m² (5000 items/km²), station 2 ranged between 0 - 0.2033 items/m² (20330 items/km²) and station 3 ranged between 0 .0017 – 0.1283 Items/m² (12830 items/km²). The highest density of marine waste at the three observation stations was plastic waste. Meanwhile, the density of mangroves at station 1 shows the species *Aigiceras Floridum* with a density value of 0.0383 ind/m² (3833 ind/km²), *Soneratia Alba* with a value of 0.0150 ind/m² (1500 ind/km²). Meanwhile, the *Rhizopora Apiculata* species has a value of 0.1100 ind/m² (11000 ind/km²). station 2 shows that the *Soneratia Alba* species has a density value of 0.0933 ind/m² (9333 ind/km²) and the *Rhizopora Apiculata* type 0.0100 ind/m² (1000 ind/km²). station 3 shows that the *Soneratia Alba* species has a density value of 0.0700 ind/m² (7000 ind/km²). The regression results of the relationship between mangrove density and waste density at the 3 stations are positive.*

Key words: Marine debris, mangrove forests, Bobonehena and Gueamaadu villages.