

PERANAN REHABILITASI MANGROVE TERHADAP PERBAIKAN KUALITAS HABITAT DI PANTAI UTARA, DESA BRANTA TINGGI, KECAMATAN TLANAKAN, KABUPATEN PAMEKASAN, JAWA TIMUR
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PERANAN REHABILITASI MANGROVE TERHADAP PERBAIKAN KUALITAS HABITAT, DI PANTAI UTARA, DESA BRANTA TINGGI, KECAMATAN TLANAKAN, KABUPATEN PAMEKASAN, JAWA TIMUR

INTISARI

Rehabilitasi mangrove di Pantai Utara Pamekasan, khususnya Desa Branta Tinggi, Kecamatan Tlanakan, yang dilaksanakan sejak tahun 1988 diduga telah mampu meningkatkan kualitas habitatnya. Penelitian ini bertujuan untuk mengetahui komposisi jenis-jenis tumbuhan penyusun hutan mangrove; menganalisis faktor habitat pada tahun tanam 1990, 2004, dan 2006 (suhu air, salinitas, oksigen terlarut (DO-*Dissolved Oxygen*), pH air, bahan organik tanah, ketebalan pasir, plankton (fitoplankton dan zooplankton).

Pengambilan data dilaksanakan pada tanggal 6-15 Februari 2007, dengan menggunakan metode sistematis sampling dengan jarak untuk setiap petak ukur sepanjang 50 meter. Dengan metode ini dibuat petak ukur 5x5m yang penempatan petak ukur juga didasarkan pada 3 zona tumbuh, dan diperoleh 23 petak ukur. Komponen yang diteliti meliputi komposisi jenis-jenis tumbuhan penyusun hutan mangrove, faktor fisik kimia (suhu air, salinitas, pH air, oksigen terlarut (DO), bahan organik, ketebalan substrat), dan kepadatan plankton (fitoplankton dan zooplankton), dilakukan pada tiga tahun tanam yang berbeda.

Hasil penelitian menunjukkan bahwa pada tahun tanam 1990, tinggi rata-rata vegetasi total sebesar 4,33 m, lebar akar rata-rata total 0,81 m dan kerapatan jenis total sebesar 142800 ind/ha. Tahun tanam 2004, tinggi rata-rata vegetasi total sebesar 2,78 m, lebar akar rata-rata total 0,17 m dan kerapatan jenis total sebesar 25600 ind/ha. Sedangkan untuk tahun tanam 2006, tinggi rata-rata vegetasi total sebesar 0,58 m, lebar akar rata-rata total 0 m dan kerapatan jenis total sebesar 26800 ind/ha. Tahun tanam 1990 kisaran rata-rata DO sebesar 5,18 mg/l, suhu 27,45°C, salinitas 20,04‰, pH 8,00, BO 1,32%, tebal pasir 53,65 cm, kepadatan fitoplankton 168 ind/l, dan kepadatan zooplankton 82 ind/l. Tahun tanam 2004 kisaran rata-rata DO sebesar 4,30 mg/l, Suhu 30,00 °C, Salinitas 20,90 ‰, pH 8,00, BO 0,55 %, Tebal pasir 30,10 cm, kepadatan fitoplankton 121 ind/l, dan kepadatan zooplankton 57 ind/l. Sedangkan tahun tanam 2006 kisaran rata-rata DO sebesar 4,51mg/l, Suhu 28,56 °C, Salinitas 21,64 ‰, pH 8,00, BO 0,29 %, Tebal pasir 15,01 cm, kepadatan fitoplankton 192 ind/l, dan kepadatan zooplankton 92 ind/l. Tahun tanam 1990 memiliki kualitas habitat yang lebih baik dari tahun tanam 2004 dan 2006 dapat disimpulkan terjadi peningkatan kualitas habitat dengan semakin tuanya umur mangrove.

Kata kunci : rehabilitasi, mangrove dan faktor habitat.

**THE ROLE OF MANGROVE REHABILITATION
TOWARD THE QUALITY IMPROVEMENT OF HABITAT IN PANTAI
UTARA, BRANTA TINGGI VILLAGE,
TLANAKAN DISTRICT, PAMEKASAN REGENCY, EAST JAVA**

ABSTRACT

Mangrove rehabilitation in Pantai Utara, Pamekasan, especially in Branta Tinggi, Tlanakan district, that has been done since 1988 was estimated to be able to increase its habitat quality. This research was aimed at knowing the composition of various plants forming the mangrove forest; analyzing the habitat factors in the planting years of 1990, 2004, and 2006 (water temperature, salinity, dissolved oxygen, water pH, organic substance of the land, sand thickness, and plankton (phytoplankton and zooplankton)).

Data collection was done in 6-15 February, 2007, using sampling systematic method with range for each partition was 50 meter. Using this method, then the partition 5 x 5 m was made. The placing of the partition was based on 3 zones of growing, and 23 partitions were obtained. The research components included the composition of various plants forming the mangrove forest, chemical physic factors (water temperature, salinity, water pH, dissolved oxygen, organic substance, substrate density), and plankton density (phytoplankton and zooplankton). It was done in three different planting years.

The research finding showed that in the planting years of 1990, the average height of total vegetation was 4, 33 m, total average of root width was 0,81 m, and the total density was 142800 ind/ha. In the planting year of 2004, the average height of total vegetation was 2, 78 m, total average of root width was 0, 17 m, and the total density was 25600 ind/ha. While in planting year of 2006, the average height of total vegetation was 0, 58 m, total average of root width was 0 m, and the total density was 26800 ind/ha. In 1990 planting year, average DO was 5, 18 mg/l, the temperature was 27, 45°C, the salinity was 20,04%, pH was 8, 00, BO was 1, 32%, sand thickness was 53, 65 cm, phytoplankton density was 168 ind/l, and zooplankton density was 82 ind/l. In the planting year of 2004, average DO was 4, 30 mg/l, the temperature was 30, 00°C, the salinity was 20, 90%, pH was 8, 00, BO was 0, 55%, sand thickness was 30, 10 cm, phytoplankton density was 121 ind/l, and zooplankton density was 57 ind/l. While in the planting year of 2006, average DO was 4, 51 mg/l, the temperature was 28, 56°C, the salinity was 21,64%, pH was 8, 00, BO was 0, 29%, sand thickness was 15, 01 cm, phytoplankton density was 192 ind/l, and zooplankton density was 92 ind/l. 1990 planting year had a better quality than the planting years of 2004 and 2006. it could be concluded that there was an habitat quality improvement because of an older age of the mangrove.

Keywords: rehabilitation, mangrove, and habitat factors.