

Muhammad Muslim Iqrom Al-Jalil. NPM 200341100104. Studi Komparasi Pertumbuhan Semai Bakau *Rhizophora mucronata* dan *Rhizophora apiculata* Di Desa Tajungan Kabupaten Bangkalan, **Dr. Maulinna Kusumo Wardhani, S.Kel., M.Si.**

ABSTRAK

Persemaian mangrove merupakan teknik menghasilkan kuantitas dan kualitas bibit tanaman mangrove. Keberhasilan persemaian perlu memperhatikan kesesuaian jenis mangrove dan lingkungan. Penelitian ini bertujuan untuk mengetahui pengaruh varian jenis mangrove, macam media tanam, kombinasi perlakuan terhadap pertumbuhan semai mangrove dan kualitas fisika kimia air dan tanah. Penelitian dilakukan pada bulan Januari-Maret 2024, di Desa Tajungan Kecamatan Kamal-Bangkalan. Penelitian ini menggunakan RAK (Rancangan Acak Kelompok) dengan 2 faktor perlakuan yaitu faktor pertama, varian jenis mangrove terdiri dua taraf yaitu : R1 (*Rhizophora Apiculata*), R2 (*Rhizophora mucronata*). Faktor kedua yaitu macam media tanam terdiri dua taraf yaitu : M1 (Tanah lempung), M2 (Tanah lempung dengan Pupuk kandang sapi). Data yang diperoleh dianalisis dengan Analisis sidik ragam taraf 1%, apabila berbeda nyata maka dilanjut dengan uji *Duncan Multiple Range Test* 5%. Hasil analisis sidik ragam dan *Duncan Multiple Range Test* menunjukkan perlakuan varian jenis mangrove berpengaruh sangat nyata terhadap pertumbuhan semai dan berbeda nyata semua perlakuan varian jenis mangrove, perlakuan macam media tanam berpengaruh tidak nyata terhadap pertumbuhan semai dan berpengaruh nyata terhadap diameter batang, serta kombinasi perlakuan berpengaruh tidak nyata terhadap pertumbuhan semai. Kondisi karakteristik fisika kimia air yaitu suhu berkisar 31,2 – 33°C, salinitas berkisar 27 – 30‰, DO berkisar 5,1-6,3 mg/L, pH berkisar 7-7,6. Kondisi karakteristik fisika kimia tanah yaitu suhu berkisar 31,16 - 32 °C, pH berkisar 6,91-6,97, kandungan C-Organik sebesar 0,38% pada M0 dan 0,48% pada M1, tekstur tanah lumpur berpasir dengan fraksi pasir 82%, debu 0,41% dan liat 17,84%.

Kata Kunci : Pertumbuhan, *Rhizophora apiculata*, *Rhizophora mucronata*, Tanah lempung, Pupuk kandang sapi, Kondisi Kualitas Air, Kondisi Kualitas tanah

Muhammad Muslim Iqrom Al-Jalil. NPM 200341100104. *Comparative Study of Mangrove Seedling Growth Rhizophora mucronata and Rhizophora apiculata In Tajungan Village, Bangkalan Regency, Dr. Maulinna Kusumo Wardhani, S.Kel., M.Si.*

ABSTRACT

Mangrove seeding is a technique for producing quantity and quality of mangrove plant seeds. The success of the nursery requires paying attention to the suitability of the mangrove type and the environment. This research aims to determine the effect of mangrove type variants, types of planting media, treatment combinations on the growth of mangrove seedlings and the physical and chemical quality of water and soil. The research was conducted in January-March 2024, in Tajungan Village, Kamal-Bangkalan District. This research used RAK (Randomized Block Design) with 2 treatment factors, namely the first factor, mangrove type variance consisting of two levels, namely: R1 (*Rhizophora Apiculata*), R2 (*Rhizophora mucronata*). The second factor, namely the type of planting media, consists of two levels, namely: M1 (clay soil), M2 (clay soil with cow manure). The data obtained was analyzed using analysis of variance at 1% level, if the difference was significant then the test was continued *Duncan Multiple Range Test* 5%. Results of analysis of variance and *Duncan Multiple Range Test* showed that the treatment of variant types of mangrove had a very significant effect on the growth of seedlings and was significantly different for all treatments of variant types of mangrove, the treatment of various types of planting media had an insignificant effect on seedling growth and a significant effect on stem diameter, and the combination of treatments had an insignificant effect on seedling growth. The physical and chemical characteristic conditions of water are temperatures ranging from 31.2 – 33°C, salinity ranges from 27 – 30‰, DO ranges from 5.1-6.3 mg/L, pH ranges from 7-7.6. The physical and chemical characteristic conditions of the soil are temperatures ranging from 31.16 - 32 °C, pH ranges from 6.91-6.97, C-Organic content is 0.38% in M0 and 0.48% in M1, sandy mud soil texture with a sand fraction of 82%, dust 0.41% and clay 17, 84%.

Keywords : *Growth, Rhizophora apiculata, Rhizophora mucronata, Alluvial soil, Manure, Water Quality Conditions, Soil Quality Conditions*